

# CONGRESSO CENTENÁRIO

# 1923 APU 2023

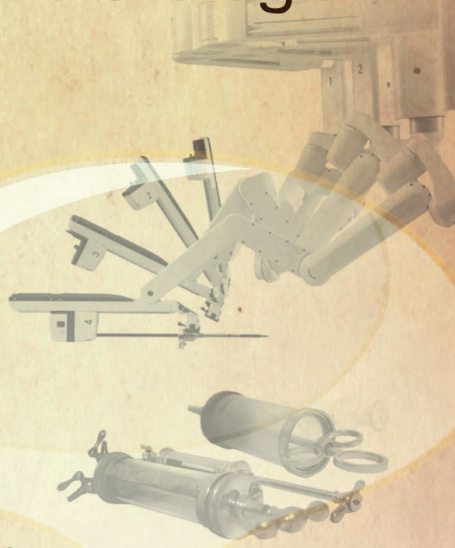


Associação  
Portuguesa  
de Urologia

**20 a 22 | outubro | 2023**  
Convento de S. Francisco  
Coimbra

**19 de outubro | Cursos Pré-Congresso**

ORGANIZAÇÃO  
**ASSOCIAÇÃO PORTUGUESA DE UROLOGIA**  
e Serviço de Urologia e Transplantação Renal do CHUC  
(Centro Hospitalar Universitário de Coimbra)



# PROGRAMA

# CONGRESSO CENTENÁRIO

# 1923 APU 2023

## Comissão organizadora

Arnaldo Figueiredo  
Belmiro Parada  
Paulo Temido  
Edson Retroz  
Pedro Simões  
Pedro Nunes  
Paulo Azinhais  
Luís Bernardo Sousa  
Henrique Dinis  
Lorenzo Marconi  
Edgar Tavares da Silva  
Miguel Eliseu

Roberto Jarimba  
João Lima  
Vasco Quaresma  
Manuel Lopes  
João Lorigo  
Ana Ferreira  
Rui Pedrosa  
Ana Guerra  
Bárbara Figueiredo  
Ana Maria Ferreira  
Tiago Sousa  
Juliana Santos

## Comissão científica

**Presidente** Arnaldo Figueiredo

Estevão Lima  
Pedro Vendeira  
Carlos Silva  
Belmiro Parada  
Palma Dos Reis  
Luís Campos Pinheiro  
Avelino Fraga



ANOS

Associação  
Portuguesa  
de Urologia

Quinta-feira 19 | outubro | 2023

CONVENTO DE SÃO FRANCISCO

14:00-16:00h **CURSO PRÁTICO 1. Urologia pediátrica: Bexiga neurogénica, da infância à idade adulta**



Coordenadores: Pedro Nunes e João Moreira Pinto

Moderadores: Armando Reis e Fátima Alves

Fisiopatologia da bexiga neurogénica

Manuel Ramos

Diagnóstico e abordagem conservadora

Aline Vaz Silva

Abordagem cirúrgica da bexiga neurogénica

Ubirajara Barroso (*Brasil*)

Urologia de transição e consequências no adulto

Alfredo Canalini (*Brasil*)

Discussão interativa de casos clínicos

CONVENTO DE SÃO FRANCISCO

14:00-16:00h **CURSO PRÁTICO 2. Diagnóstico no cancro próstata**

Técnicas de imagem (*Ressonância magnética da próstata, interpretação PIRADs, micro-ecografia ecografia multiparamétrica*)

Pedro Pereira

Estratégias para a seleção de doente

Lorenzo Marconi

Técnicas e vias de abordagem da próstata (*Via transperineal vs. transrectal; Utilização de guias vs template vs Free-hand; Profilaxia antibiótica*)

Paulo Jorge Dinis

Estratégias de amostragem (*Biópsia target vs systematic; Técnicas de fusão cognitiva vs fusão software vs in Bore; Princípios da fusão software (Fusão rígida vs fusão elástica)*)

João Pina

**ESTAÇÕES PRÁTICAS**

ESTAÇÃO 1: Técnica transperineal *free-hand* sem guia e técnica transperineal *free-hand* com guia (Modelo *Precision Point*)

ESTAÇÃO 2: Demonstração de fusão software

ESTAÇÃO 3: Interpretação e discussão de imagens de RMmp próstata

**16:30-18:30h CURSO PRÁTICO 3. Imuno-oncologia e uro-oncologia sistémica**

Formadores: Belmiro Parada, Manuel Oliveira, Lorenzo Marconi,  
Paulo Azinhais e Mónica Mariano

**Revisão do estado da arte e abordagem prática baseada em casos clínicos**

**Carcinoma urotelial:**

- NMIBC de alto risco
- Músculo-invasivo localizado
- Metastizado
- Tumor do urotélio alto

**Carcinoma renal metastizado:**

- Localmente avançado / Alto risco
- Oligometastático
- Metastático 1ª linha
- Metastático pós 1ª linha

**16:30-18:30h CURSO PRÁTICO 4. Cirurgia protésica e endourologia**

Formadores: Paulo Temido, Pedro Simões, Luís Sousa, Pedro Moreira,  
e Nuno Tomada

**Disfunção erétil e incontinência urinária do homem:**

- Indicações e seleção de pacientes
- Técnica cirúrgica – Truques e dicas
- Considerações pré e pós-operatórias
- Workshop prático: Esfincter urinário artificial; Prótese peniana insuflável

**RIRS e nefrolitotomia percutânea:**

- Indicações e seleção de pacientes
- Técnica cirúrgica – Truques e dicas
- Considerações pré e pós-operatórias
- Workshop prático: Material endourológico

16:30-18:30h

(limite: 10 participantes)

### **CURSO PRÁTICO 5. Modelos animais em Urologia**

Formadores: Edgar Tavares da Silva, Salomé Pires, Margarida Abrantes e Miguel Eliseu

Ética e legislação em vigor

Noções básicas de bioterismo, bem-estar animal e monitorização

Anestesia animal e anatomia comparada

Manuseamento de ratinhos e de ratos e anestesia dos mesmos

Modelos animais em Urologia

Exploração cirúrgica de ratos e ratinhos

14:00-16:00h

(limite: 10 participantes)

### **CURSO PRÁTICO 6. Suturas vasculares**

Formadores: Miguel Eliseu, Edson Retroz, Arnaldo Figueiredo, Pedro Moreira e Edgar Tavares da Silva

Princípios de anastomoses vasculares

Lesões iatrogénicas e a sua abordagem – Baseado em casos clínicos

*Hands-on:* Suturas vasculares em modelos animais

## CONGRESSO

**Sexta-feira 20 | outubro | 2023**

07:40h

Abertura do Secretariado

08:00-09:00h **Comunicações Orais I**

Moderadores: Mário Cerqueira e Aníbal Coutinho

CO 01 – CO 11

09:00-13:00h **E-BLUS**

Preparação e exame

SALA B

09:00-10:00h **MESA-REDONDA Carcinoma do rim**

Moderadores: André Silva e Miguel Carvalho

**Evolução biológica do CCR: O legado do TRACERx**

Charlotte Spencer (*Reino Unido*)

**Radioterapia no carcinoma de células renais**

Paulo Costa

**Tratamentos locais para CCR oligometastático: Quem e quando em 2023?**

Lorenzo Marconi

10:00-10:45h **SIMPÓSIO** **Novas abordagens no CCR: Tratamento adjuvante. A importância da colaboração entre Urologia e Oncologia**  
Palestrantes: Tito Leitão e Isabel Fernandes



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10:45-11:15h Coffee break

**Visita aos cartazes**

Moderadores: Pedro Mota Preto e Vanessa Vilas Boas  
CT 01 – CT 16

11:15-12:00h **SIMPÓSIO** **Tratamento do CPmHS: A evidência da prática clínica reforça os dados clínicos?**  
Palestrantes: Lorenzo Marconi, Bruno Pereira e Miguel Ramirez Backhaus (*Espanha*)



12:00-12:15h **SESSÃO DE ABERTURA**

12:15-12:45h **Tertúlia histórica comemorativa do centenário**

Moderadores: Alfredo Mota e Mendes Silva  
Linhares Furtado, Campos Pinheiro e Joshua Ruah



**Inauguração da exposição fotográfica sobre a evolução histórica e tecnológica da Urologia nas últimas décadas**

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12:45-14:00h Almoço

14:00-15:00h **Vídeos I**  
Moderadores: Ricardo Borges e Ricardo Ramires  
VD 01 – VD 10

15:00-16:00h **MESA-REDONDA** **Andrologia**  
Moderadores: Sérgio Santos e Bruno Pereira

**Um caso histórico na Andrologia**  
Francisco Rolo

**Terapêutica hormonal após carcinoma da próstata**  
Luiz Otávio Torres (*Brasil*)

**Peyronie – Cirurgia com prótese**  
Pedro Vendeira

**Impacto das redes sociais nas disfunções sexuais**  
Maria José Freire

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16:00-16:30h Coffee break

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**Visita aos cartazes**

Moderadores: Pedro Mota Preto e Vanessa Vilas Boas  
CT 17 – CT 32

16:30-17:15h **MESA-REDONDA Litigância em Urologia**

Moderadores: Miguel Guimarães, Suzana Tavares da Silva, Natália Freitas e Marta Costa Santos  
Palestrantes: Carlos Silva e Belmiro Parada

17:15-19:00h **Comunicações Orais II**

Moderadores: Fernando Vila e Ferdinando Pereira  
CO 12 – CO 32

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20:30h Jantar de Palestrantes

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## Sábado 21 | outubro | 2023

08:00h Abertura do Secretariado

08:30-09:30h **Comunicações Orais III**

Moderadores: Paulo Rebelo e Pedro Eufrásio  
CO 33 – CO 43

09:00-13:00h **E-BLUS**

Preparação e exame

SALA B

09:00-16:30h **SIMPÓSIO Enfermagem urológica** *(programa pág. 10)*

SALA C

09:30-10:20h **MESA-REDONDA Urologia funcional**

Moderadores: Luís Abranches Monteiro e Alfredo Canalini *(Brasil)*

**Bexiga hiperativa e biomarcadores**

Rui Pinto

**Esfíncter artificial para IUE feminina**

Luis Lopez-Fando *(Espanha)*

**Neuromodulação sagrada**

Ricardo Pereira e Silva

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10:20-10:50h Coffee break

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**Visita aos cartazes**

Moderadores: Lilian Campos e Catarina Gameiro  
CT 33 – CT 48

10:50-12:30h **MESA-REDONDA Carcinoma da próstata**

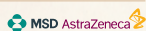
Moderadores: Luís Alvarez-Ossório (*Espanha*) e Jorge da Silva

**Um caso histórico no carcinoma da próstata**


Tito Leitão

**Quais os limites da vigilância ativa?**

Nicolas Mottet (*França*)



**A importância do teste genético na gestão do cancro da próstata**

Enrique Grande (*Espanha*) 



**A terapia de privação androgénica na prática clínica atual:**

**Desafios e perspetivas futuras**

Philip Cornford (*Inglaterra*)



**10 anos de experiência no tratamento de cancro da próstata com Enzalutamida**

Javier Burgos Revilla (*Espanha*)

12:30-13:15h **SIMPÓSIO Como maximizar os benefícios clínicos dos doentes com CP?**



Palestrantes: Arnaldo Figueiredo e Nicolas Mottet (*França*)

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13:15-14:30h Almoço

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14:30-15:15h **MESA-REDONDA Inteligência artificial em Urologia**

Moderadores: Palma Reis e Frederico Reis



**Inteligência artificial**

Rogério Canhoto

**Projeto humano visível em realidade aumentada**

Luc Soler (*França*)

15:15-15:45h **MESA-REDONDA Transplantação renal**

Moderadores: Paulo Dinis e Edson Retroz

**Abordagem da doença renal poliquística autossómica dominante**

Pedro Nunes

**Complicações urológicas pós transplante**

Javier Burgos Revilla (*Espanha*)



15:45-16:50h **MESA-REDONDA** Carcinoma do urotélio

Moderadores: António Morais e António Canelas



**Hot Topics** no carcinoma urotelial

Jorge Dias

Como melhorar o diagnóstico, estadiamento e tratamento do carcinoma do urotélio alto

Juan Luis Vásquez (*Dinamarca*)



**Novidades** no tratamento do cancro urotelial

Manuel Oliveira

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16:50-17:20h Coffee break

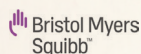
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**Visita aos cartazes**

Moderadores: Lilian Campos e Catarina Gameiro

CT 49 – CT 64

17:20-18:05h **SIMPÓSIO** O papel da imunoterapia no contexto peri-operatório do Carcinoma Urotelial músculo-invasivo



Moderador: Arnaldo Figueiredo

Abordagem peri-operatória no carcinoma urotelial músculo-invasivo: Quais as oportunidades para a imunoterapia?

Lorenzo Marconi

Optimizar o tratamento para o doente: Perspetivas futuras

Alina Rosinha

18:05-19:05h **MESA-REDONDA** Grupo de robótica da APU

Moderadores: Rui Prisco e Luís Campos Pinheiro

Como introduzir um programa de cirurgia robótica em Portugal?

Avelino Fraga

Prostatectomia radical robótica – Dicas e truques

Roni de Carvalho Fernandes (*Brasil*)

Desafios da cistectomia radical com criação de neobexiga intracorpórea

Alejandro Rodríguez (*E.U.A.*)

Nefrectomia parcial robótica – Quais os limites?

Kris Maes

19:05h **Assembleia Geral e Eleitoral**

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20:30h Jantar de Gala

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08:00h Abertura do Secretariado

08:30-09:30h **Vídeos II**  
Moderadores: Carlos Rabaça e Luís Xambre  
VD 11 – VD 20

09:30-10:30h **MESA-REDONDA Litíase renal**  
Moderadores: Pedro Simões e Peter Kronenberg  
Um caso histórico na litíase  
Vitor Cavadas  
LEOC: Passado, presente e futuro  
José Miguel Jiménez (*Espanha*)  
Tratamento médico da litíase  
Pedro Moreira  
Mini-Perc vs. RIRS  
Pedro Monteiro

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10:30-11:00h Coffee break

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11:00-11:45h **SIMPÓSIO Novas abordagens terapêuticas no cancro da próstata metastático resistente à castração**  
Moderador: Arnaldo Figueiredo  
Visão da Oncologia  
Isabel Fernandes  
Visão da Medicina Nuclear  
Rodolfo Silva  
Q&A

11:45-12:40h **MESA-REDONDA HBP/LUTS**  
Moderadores: Estevão Lima e Francisco Cruz  
Um caso histórico na HBP  
José Dias  
Preservação da função sexual após cirurgia para HBP – Porquê e como  
Jean de la Rosette (*Turquia*)  
Tratamento de próstatas volumosas por cirurgia robótica  
Hamilton Zampolli (*Brasil*)

12:40-13:10h **CONFERÊNCIA DE ENCERRAMENTO Medicina e outras ciências em 1923**  
Presidentes: Miguel Ramos e Arnaldo Figueiredo  
Palestrante: Carlos Fiolhais

13:10h **SESSÃO DE ENCERRAMENTO**  
Entrega de prémios aos melhores trabalhos apresentados

**Sábado 21 | outubro | 2023****09:00-09:30h** **SESSÃO DE ABERTURA****09:30-10:30h** **MESA-REDONDA** Reabilitação da pessoa após cirurgia urológica

Moderadora: Marisa Gonçalves

Cirurgia robótica: Novas perspetivas

Tiago Santos

Bexiga nova: Autocontrolo na continência urinária

Daniela Dias

Uroreabilita: Projeto melhoria contínua

Ricardo Figueira

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**10:30-11:00h** Coffee break

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**11:00-13:00h** **MESA-REDONDA** Sexualidade comprometida (contexto urológico)  
– **Desafios?**

Moderadora: Ana Constantino

Disfunções sexuais masculinas

Catarina Ribeiro

Estratégias adaptativas (opções)

Teresa Morais

Acompanhamento após a alta

Mário Varandas

Comunicação em Oncosexologia

Maria Piedade Leão

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**13:00-14:30h** Almoço livre

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**14:30-16:00h** **MESA-REDONDA** Ostomias urinárias

Moderadora: Sílvia Vilela

Gestão de cateteres nas ostomias urinárias

Tânia Semeano

Gestão da pele periestomal: Partilha de experiências

Filipa Tavares e Ana Carolina Martins

**16:00-16:30h** **ASPETOS PRÁTICOS** Dispositivos de eliminação urinária – Opções  
Sílvia Vilela**16:30h** **Encerramento do Simpósio**



## Cartazes

### CT 01

#### MESH EXPOSURE AFTER MIDURETHRAL SLINGS: A RETROSPECTIVE LONG-TERM STUDY OF EROSION IN THE TRANS OBTURATOR APPROACH

*José Pedro Cadilhe; José Leitão; Hugo Coelho; Eurico Maia*

*Unidade Local de Saúde do Alto Minho, EPE / Hospital de Santa Luzia*

**Introduction and aims of study:** Mesh-related complications following transvaginal management of pelvic organ prolapse and/or urodynamic stress incontinence (USI) have received significant attention since 2006. Midurethral tapes, carries a small but significant and concern risk of erosion and extrusion of the synthetic material into the vagina and urethra. The rates are higher with nonknitted polypropylene tapes as compared to knitted macroporous monofilament Type I tapes (<5%) [1]. In a nationwide cohort study of 6,706 women in Denmark, Ferm Eisenhard et al found a significantly reduced risk of mesh exposures if perioperative antibiotics are administered [2]. The purpose of this study was to evaluate the feasibility and the safety of the trans obturator procedure (TOT) with this particular SERASIS® Tape, as well as documenting the post-operative long term sling erosion/extrusion.

**Materials and Methods:** We retrospectively evaluated 848 patients who underwent TOT using SERASIS® systems by the same surgeon between 2006 and 2019 (SERASIS® MR tape: non elastic, softly knitted monofilament blue non-absorbable

polypropylene, Serag-Wiessner, Germany) for the cure of USI, and required surgical review for tape problems. All patients received perioperative antibiotic prophylaxis and all post-menopausal women, if they have no contraindications, received post-operative vaginal estrogens for at least 4 months. The SERASIS® trocar sets designed for specific purposes can be used depending on the surgeon's preferences and the anatomical conditions presented by the patient (e.g. SERASIS® TO, XXL, SL). When vaginal erosion occurs, the patient usually manifests persistent vaginal discharge, postcoital bleeding, and pain during intercourse or male partner discomfort. Diagnosis was confirmed by visual inspection or palpation of the tape in the vagina. Care must be taken to exclude urethral and bladder erosions, as such we performed Urethrocystoscopy whenever dysuria or UTIs appear.

**Results:** In our series, the erosion rate was 0,5% (4/848). The majority of the erosions developed within a few months (5-16m), therefore they were addressed by partial removal of the eroded sling. Only one had urethral and vaginal extrusion corrected 8 years after the procedure. We also report 0,6% of patients (5/848) who underwent urethrolisis with tape section due to obstructive voiding complaints. The patient with urethral and vaginal extrusion deteriorated continence after the sling was removed, whereas the others remained stable including the 5 submitted to

the tape section.

**Concluding message:** The use of SERASIS® MR, along with the significance of perioperative antibiotic prophylaxis [2] and the postoperative vaginal estrogens in postmenopausal women, may result in less tape extrusion into the urethra or vagina. The encouraging findings of this study might help surgeons to be more accurate when choosing Tapes.

## CT 02

### BLADDER CANCER IS ASSOCIATED WITH IMMUNOSUPPRESSION AND ENHANCED ACTIVITY OF ECTONUCLEOTIDASES IN PERIPHERAL BLOOD: A FLOW CYTOMETRY ANALYSIS

*Frederico Furriel1; Margarida Pereira2; Ana Lúcia Santos3; Sandra Silva3; Isabel Silva3; Paula Laranjeira3; Hugo Ferreira2; Gabriela Sampaio Ribeiro2; Célia Gomes2; Belmiro Parada4*

*1 Centro Hospitalar de Leiria / Hospital de Santo André; 2 Coimbra Institute for Clinical and Biomedical Research, Faculdade de Medicina da Universidade de Coimbra; 3 Unidade de Gestão Operacional de Citometria, Centro Hospitalar e Universitário de Coimbra; 4 Centro Hospitalar e Universitário de Coimbra / Hospitais da Universidade de Coimbra*

**Introduction & objectives:** Emerging evidence demonstrates the role of the adenosinergic pathway (AP) as an immunosuppressive mechanism playing a key role in different types of cancer.

In this study, we aim to quantify the expression of two crucial elements of the AP, the ectonucleotidases CD39 and CD73, on different subpopulations of T cells (CD4<sup>+</sup>, CD8<sup>+</sup>, and regulatory T cells [Treg]) in peripheral blood of bladder cancer (BC) patients. This is part of a more extensive study aiming to trace an immunologically based signature of the AP in BC, with therapeutic and prognostic purposes.

**Materials & methods:** We conducted a

study with 40 sequential patients with histologically confirmed urothelial carcinoma of the bladder (Group A) who were programmed for surgery – transurethral resection of the bladder or radical cystectomy. Peripheral blood was collected before surgery, and the CD39 and CD73 expression on T cells was evaluated by flow cytometry with a FACSCantoÔll cytometer. Results were compared with a control group (Group B) of 14 gender- and age-matched individuals without a history of inflammatory or neoplastic disease. Institutional Ethical Committee approval was obtained.

Comparison between groups, and between subgroups of Group A based on histological grade and TNM classification, was performed using SPSS Statistics v. 27.

**Results:** Compared to Group B, Group A showed a statistically significant increase in the frequency of CD8<sup>+</sup> T cells ( $p=0.045$ ) and regulatory T cells (CD4<sup>+</sup>, CD25<sup>+</sup><sup>bright</sup>, CD127<sup>+</sup><sup>dim</sup>), both CD4<sup>+</sup> Treg ( $p=0.000$ ) and CD8<sup>+</sup> Treg ( $p=0.021$ ).

When assessing the AP in CD4<sup>+</sup> cells, we found that Group A had a significantly higher frequency of CD39<sup>+</sup> cells than Group B ( $p=0.006$ ). Also, the subgroup of Group A with high-grade disease (histological high-grade or pT<sup>3</sup>2) (15 patients) showed a significantly higher frequency of CD73<sup>+</sup> T cells, as compared to the subgroup of patients with low-grade disease (histological low-grade and pTa/1) (25 patients), both in CD4<sup>+</sup> ( $p=0.008$ ) and CD8<sup>+</sup> ( $p=0.004$ ).

We could find a significant positive correlation between the frequency of CD39<sup>+</sup> T cells (CD4<sup>+</sup> and CD8<sup>+</sup>) and the frequency of regulatory T cells ( $p=0.001$  for CD4<sup>+</sup>,  $p=0.028$  for CD8<sup>+</sup>).

**Conclusions:** Signs of immunosuppression can be found in the peripheral blood of patients with BC, as noted by the increased presence of different subpopulations of regulatory T cells. This is associated with an amplified activity of CD39, with CD73

representing a possible marker of high-grade disease. This is consistent with our previous results on the tumor microenvironment and suggests a role of the AP in the pathophysiology of BC, encouraging further research on this pathway and exploration of targeted therapies.

### CT 03

#### IS THE PRINCETON CONSENSUS RISK STRATIFICATION ADEQUATE FOR ERECTILE DYSFUNCTION PATIENTS?

*João Lorigo; Daniela Macedo Gomes; Ana Rita Ramalho; Barbara Figueiredo; Edgar Tavares Silva; Luis Sousa; Arnaldo Figueiredo*

*Centro Hospitalar e Universitário de Coimbra / Hospitais da Universidade de Coimbra*

**Introduction:** Cardiovascular disease is a leading cause of death and disability in men. Erectile dysfunction (ED) is a common age-related problem, and its association with cardiovascular disease has been primarily characterized by shared risk factors. However, emerging evidence suggests that ED may serve as an independent and strong marker of cardiovascular disease (CVD) risk. The III Princeton Consensus aimed to evaluate and manage cardiovascular risk in men with ED and no known cardiovascular disease, focusing on identifying those requiring additional cardiologic work-up. Despite the III Princeton Consensus, the cardiovascular assessment of men with ED has seen little change in urologic practice.

**Objective:** This study aims to assess the adequacy of the III Princeton Consensus criteria for stratifying CVD risk in men with ED and explore alternative risk stratification models for improved risk assessment.

**Materials and methods:** Cross-sectional investigation including all patients referred to the andrology department for the evaluation and management of erectile dysfunction over a three-year period,

from December 2019 to December 2022. We collected demographic data, medical history, and CVD risk factors recorded in the hospital registries. Four risk stratification models were employed: III Princeton Consensus, Score2, Framingham, and Atherosclerotic Cardiovascular Disease (ASCVD) model. Outcome measures included the percentage of patients categorized as “Low Risk” according to each model, positive stress test results, the proportion of patients undergoing invasive cardiac procedures, and the incidence of major adverse cardiovascular events (MACEs). Statistical analyses were performed using SPSS software ver. 25.0 (IBM, Armonk, NY, USA).

**Results:** A total of 138 patients with ED were included in the study, with a mean age of  $57.1 \pm 0.9$  years old. The average body mass index (BMI) was  $27.8 \pm 0.4$ , and each patient had a median of 3 CVD risk factors. The study employed different risk stratification models to assess the CVD risk in the patient population. According to the III Princeton Consensus criteria, approximately 35.8% of the patients were classified as “Low Risk”. However, when using alternative risk scores, such as Score2, Framingham, and ASCVD, the percentages of patients classified as being at the lowest risk group were significantly different: 15.8%, 50% and 21.3%, respectively ( $p < 0.05$ ). Within the “Low Risk” group according to the III Princeton Consensus criteria, 62.5% and 9.4% were classified as High and Very High risk according to the Score2 model, respectively. Among the patients requiring cardiovascular assessment before initiating ED treatment, 21,7% tested positive for ischemia. Of these, 50% underwent invasive cardiac procedures. Notably, there was only one reported case of myocardial infarction, and it occurred in a patient classified as “Low Risk” according to the III Princeton Consensus criteria. In contrast, the Score2 model categorized

that patient as “high risk.” However, despite the different risk stratifications, the study did not find significant differences in the risk of major adverse cardiovascular events (MACEs) between the “Low Risk” and “Non-Low Risk” groups. This was likely due to the rarity of such events observed during the study period.

**Conclusion:** This observation implies that this commonly employed tool might be the least sensitive among the studied risk models. It raises a concerning possibility that Urologists could potentially be overlooking patients with undiagnosed cardiovascular disease, consequently missing out on crucial opportunities for timely intervention and prevention of MACEs and premature deaths. Therefore, incorporating additional risk stratification models, such as Score2, Framingham, and ASCVD, may provide a more accurate assessment of the CVD risk. Ultimately, a more comprehensive and accurate risk assessment can lead to improved outcomes in this high-risk population, helping to mitigate the impact of cardiovascular disease on men’s health.

#### CT 04

##### RARE COMPLICATIONS AFTER TVT SURGERY - ABOUT A CASE REPORT

*João Lorigo; Rui Pedrosa; Vasco Quaresma; Edgar Tavares Silva; Paulo Temido; Arnaldo Figueiredo*

*Centro Hospitalar e Universitário de Coimbra / Hospitais da Universidade de Coimbra*

**Introduction:** Stress Urinary Incontinence (SUI) is a very common condition, affecting up to 50% of women in their lifetime. TVT and TVT-O are the most common procedures performed around the world to treat these patients. Lately, concerns about complications and safety issues began to grow. It brought implications, namely, in the availability of these treatment options in some countries and in the need for ways

to better treat these complications. It is therefore important to report on possible complications and their treatment options.

**Objective:** To review the main complication after TVT procedures. To report a rare complication after suprapubic TVT surgery and its management.

**Materials and methods:** We performed a review of the literature, trying to clarify what is known about complications after TVT procedures and how to manage them.

**Results:** The main complications found were: Voiding difficulty 7,6% (mostly transient); Complete postoperative urinary retention 2,3-6,6%; Puncture of the bladder 3,8-7,3%; Chronic groin pain 1,3-6,4%; UTI 4,1%; Hematoma 0,3-1,9%; Vaginal erosions 0,8-1,3%; de novo urgency 0,7-2%; Obturator nerve injury <1%; wound infection <1%; bowel perforation <0,1%; vessel injuries <0,1%. Vascular injury, major hematomas and need for laparotomy are extremely rare and there was found little data about its management. Most delayed hematomas are of venous origin and only one third of them required re-operation. Transfusion support is needed in 0,3% of the patients. When comparing TVT vs TVT-O, the first procedure was associated with an increased risk of hematomas. We report a case of a 52 years old patient with SUI submitted to an outpatient TVT procedure. Few hours after discharge, the patient was admitted to the emergency room with pelvic pain and hypotension. After evaluation, she is diagnosed with a large pelvic hematoma (11cm), with visible active bleeding from a branch of the inferior vesical artery. She is submitted to selective angioembolization, and on the next day, the patient is safely reoperated to remove the hematoma that was compressing adjacent structures, with minimal bleeding.

**Conclusion:** TVT procedures are safe. Serious hemorrhagic complications after TVT procedures are exceedingly rare. An-

gioembolization seems safer as a first line treatment. However, for large residual haematomas we recommend its surgical removal.

## CT 05

### DRENAGEM ASPIRATIVA VS DRENAGEM PASSIVA NA CIRURGIA DE TRANSPLANTE RENAL: A EXPERIÊNCIA DE UM CENTRO

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**Introdução:** A escolha do tipo de dreno a utilizar após uma cirurgia de transplante renal continua a ser alvo de controvérsia. A drenagem abdominal passiva, com dreno multitubular ou outros, e a drenagem aspirativa, com pressão negativa intra-abdominal, são frequentemente utilizadas, embora não existam estudos que demonstrem a superioridade de uma em relação à outra.

**Objetivos:** O objetivo deste estudo é comparar os resultados pós-operatórios da utilização da drenagem passiva vs drenagem aspirativa em cirurgias de transplante renal.

**Métodos:** Estudo de desenho retrospectivo, que incluiu 108 doentes submetidos a cirurgia de transplante renal num centro de referência nacional, entre Maio de 2022 e Maio de 2023. A escolha do método de drenagem foi baseada na preferência do cirurgião.

Através da consulta dos processos clínicos foram avaliadas, para todos os doentes, as seguintes variáveis: duração do internamento hospitalar, número de dias até remoção do dreno, formação de hematoma, ocorrência de infeção pós-operatória e volume drenado nos intervalos de tempo 0-24h e 24-48h após a cirurgia.

**Resultados:** Amostra final com 108 doen-

tes, 72 dos quais incluídos no grupo de drenagem passiva e 36 no grupo de drenagem aspirativa. O grupo submetido a transplante renal com colocação de dreno multitubular associou-se a uma maior percentagem de hematomas, quando comparado com o grupo de drenagem aspirativa (23,6% vs 5,6%,  $p < 0,05$ ). Houve também uma tendência para uma maior ocorrência de infeções pós-operatórias no grupo da drenagem passiva (17 vs 2), mas sem atingir uma diferença estatisticamente significativa.

A permanência hospitalar foi significativamente menor no grupo da drenagem aspirativa (10,86 vs 8,69 dias,  $p < 0,05$ ), sendo que a remoção do dreno abdominal foi também mais precoce neste grupo de doentes (5,80 vs 4,17 dias,  $p < 0,05$ ).

O volume médio drenado em ambos os intervalos de tempo avaliados foi significativamente inferior no grupo do dreno aspirativo. Às 24h o volume médio drenado foi de 250,97mL no grupo do dreno aspirativo e 446,60mL no grupo com dreno multicapilar ( $p < 0,05$ ); e entre as 24 e 48h de 96,39mL com dreno aspirativo e 205,28mL com dreno multicapilar ( $p < 0,05$ ).

**Discussão/Conclusões:** Com base nos resultados preliminares anteriormente apresentados, podemos concluir que drenagem aspirativa no transplante renal está associada a melhores resultados pós-operatórios imediatos. No entanto, reconhece-se a necessidade validação prospectiva e com desenho aleatorizado do estudo apresentado, bem como a avaliação da influência a longo prazo na sobrevivência do enxerto.



## CT 06

### PROCUREMENT GRAFT BIOPSY VERSUS THE KDRI IN PREDICTING KIDNEY TRANSPLANT OUTCOMES - A CROSS-SECTIONAL STUDY

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**Introduction:** The histological evaluation of renal grafts prior to a transplant, and donor related factors (last seen creatinine value, sex, age and comorbidities) are some of the elements that are proved to influence kidney transplantation outcomes.

In our center the Remuzzi score is used to select grafts for transplantation (simple transplant for scores of 1 and 2, double for 3 and 4, and above that the grafts are excluded). The Kidney Donor Risk Index (KDRI) is a clinical score, applicable to deceased kidney donors, that reflects relative graft failure risk associated with deceased donor characteristics. It has been proposed as a substitute of, or complementary to preimplantation renal biopsy.

**Aim:** The aim of this study is to compare the predictive value of the KDRI score of kidney donors and graft's Remuzzi score with clinical outcomes at 12 months.

**Materials & Methods:** Cross-sectional study that included all patients receiving a biopsied kidney graft from 2011 to 2020 at the University Hospital of Coimbra (n=109). Clinical data was collected from the hospital and the kidney transplant unit database. Statistical analysis was performed using SPSS software ver. 22.0 (IBM, Armonk, NY, USA). The serum creatinine (sCr) during the first year of follow up was correlated with the observed Remuzzi and the KDRI scores. The samples were then divided in two groups, according to an op-

timal cut-off value ( $KDPI \leq$  or  $> 1,75$ ) identified in a ROC curve.

**Results** Median age of the population was 63,7±8,4 years old. The median sCr at 1, 3, 6 and 12 months were 1,76 mg/dL, 1,77 mg/dL, 1,81 mg/dL and 1,83 mg/dL, respectively. Patients receiving a kidney from a donor with higher KDRI showed a greater sCr at 12M ( $r=+0,04$ ,  $p<0.05$ ), however, higher Remuzzi's scores of the graft's biopsy were not correlated with greater sCr at 1, 3, 6 or 12 months ( $p=n.s.$ ). Patients with a  $KDRIs \leq 1,75$  (45%) showed lower sCr at 12 months vs. the ones with a  $KDRIs > 1,75$  (1,59 vs 2 mg/dL,  $p<0.05$ ).

**Conclusion:** KDRI showed better correlation with clinical outcomes (sCr at 12 months) than the graft's biopsy Remuzzi score.

## CT 07

### THE PORTUGUESE NAVY RADIATION-INDUCED CYSTITIS (PNRC) SCALE: VALIDATION OF A NOVEL CLINICAL RADIATION-INDUCED CYSTITIS CLASSIFICATION

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**INTRODUCTION:** RT is often used in the treatment of pelvic malignancies. Despite the latest technological advances, collateral soft tissue lesions are still relatively frequent. Because of its high morbidity and mortality, radiation-induced cystitis (RIC) is one of the most important late adverse effects of pelvic irradiation. While it may develop in the acute setting, the onset of symptoms is usually several years after pelvic irradiation, with patients presenting with symptoms as long as 14 years after radiotherapy. Considering that many

patients develop mild lower urinary tract symptoms, RIC is often underdiagnosed, with the estimated global incidence varying greatly, from 3 to 80%. There is currently no validated classification for RIC with widespread use in the clinical setting, hampering not only the assessment of the correct incidence of this condition but also making it impossible to compare the results of the different treatment modalities.

**OBJECTIVES:** To validate a new classification system of RIC, that not only covers all domains of the disease, but that can also be used systematically and in a standardized way in a clinical and scientific setting.

**MATERIALS AND METHODS:** A comprehensive classification for RIC, the Portuguese Navy Radiation-induced Cystitis (PNRC) scale, encompassing five clinical domains (hematuria, other lower urinary tract symptoms, functional impairment, endoscopic findings and therapeutic interventions) was developed by a group of experts. Each clinical domain was divided into six progressive levels of severity (1-6). The highest degree of severity of the five clinical domains corresponds to the patient's PNRC score. The classification was analyzed, by an independent group of experts, that assessed relevance and clarity, using a three-level Likert scale, and made suggestions. After incorporation of the suggestions, the final version of the PNRC scale was analyzed in two subsequent rounds, by a series of international experts. On the first round, the classification was applied to a series of 20 clinical cases of patients with RIC. Consensus was considered when more than 70% of agreement was achieved. On the second round, the same group of experts evaluated not only the global applicability of the PNRC scale, but also assessed each individual clinical domain for relevance and appropriateness.

**RESULTS:** A group of 114 experts (including urologists, gynecologists, radiation oncol-

ogists and medical oncologists), from 30 countries in five different continents, independently and anonymously completed the first round of evaluation and used the PNRC scale to classify the 20 clinical cases of patients with RIC. 86% of respondents considered RIC to be a relevant or extremely relevant clinical problem and 58,7% had contact with patients with RIC on a regular basis (at least weekly or monthly), either on the infirmary or the emergency room settings. On the first round of evaluation, a consensus was reached in 85% (17/20) of clinical cases. In the clinical cases in which a consensus was not reached (3/20), an agreement >62% was observed.

A total of 61 experts completed the second round of evaluation. A consensus was reached on the relevance and appropriateness of each of the five individual clinical domains of the PNRC scale. Moreover, consensus was also achieved regarding the global applicability of the PNRC scale, namely on its exhaustiveness, hierarchy, clarity, mutual exclusivity, clinical utility and quality assessment.

**DISCUSSION/CONCLUSIONS:** The PNRC scale showed face and content validity in the stratification of severity of patients with RIC. Further studies are currently being designed to further validate the classification in the clinical setting.

## CT 08

### Fournier's GANGRENE: CLINICAL, PATHOLOGICAL AND MICROBIOLOGICAL CHARACTERISTICS - A CENTRAL HOSPITAL EXPERIENCE

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**Introduction:** Fournier's gangrene is a life threatening form of necrotizing fasciitis of the perineum, peri-anal region, and exter-

nal genitalia. Initial symptoms are often inconsistent with its severity and can progress rapidly to a fatal infection. The primary objective of this study is to analyze the clinical presentation, management approaches, and outcomes of a series of Fournier's gangrene cases. Additionally, the study aims to investigate the correlations between mortality and specific risk factors.

**Materials & Methods:** Retrospective analysis of clinical, pathological and microbiological characteristics of Fournier's Gangrene patients admitted in a tertiary hospital center from January 2018 to December 2022.

**Results:** During 5 years, 49 patients were admitted to our hospital with Fournier's Gangrene. The average age was 66 years (35 to 93 years old). Most patients complained, at admission, of pain, swelling and inflammatory signals of scrotal area. All the patients were treated with surgical debridement and broad-spectrum antibiotics. 18,4% needed a temporary colostomy. The median hospitalization time was 37,6 days, with 44,9% of the patients needing intensive care support. Mortality rate was 20,4% and is statistically correlated with hypotension at admission and medical background of immunodepression, smoking and cardiovascular major events. The most common isolated microorganisms were anaerobic bacteria (16 patients), *Escherichia* spp. (11 patients) and *Streptococcus* spp. (9 patients).

**Conclusion:** Fournier's gangrene is an aggressive and frequently fatal condition. The mainstays of Fournier's Gangrene treatment are urgent surgical debridement of necrotic tissue, fluid resuscitation, wide-spectrum antibiotics, supportive care, wound management, and reconstructive surgery. Control of risk factors have an important role in Fournier's Gangrene outcomes.

## CT 09

### UNVEILING THE MULTIFACETED NATURE OF SCHISTOSOMIASIS: A CASE STUDY OF ASYMPTOMATIC VESICAL AND CUTANEOUS SCHISTOSOMIASIS IN AN ANGOLAN IMMIGRANT

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Schistosomiasis, a disease caused by parasitic worms of the *Schistosoma* genus, can present with a wide range of clinical manifestations, making its diagnosis challenging. This case report highlights a particularly uncommon presentation of vesical schistosomiasis in a 27-year-old Angolan immigrant, where the primary complaint was cutaneous manifestations.

The patient's epidemiological context played a crucial role in guiding the diagnosis because *Schistosoma* parasites are commonly found in certain regions of Africa, including Angola, where they are transmitted through contaminated freshwater. Therefore, the patient's origin heightened the suspicion of schistosomiasis due to the endemic nature of the disease in Angola.

The patient initially presented with hyperpigmented skin lesions on their limbs, which had been present for several months. Importantly, these skin lesions were the sole primary complaint, and the patient did not exhibit any other associated symptoms. Despite conducting various tests, such as mycobacteriology studies and skin biopsies, the results always came back negative. Additionally, serological tests for sexually transmitted diseases (STDs) and polymerase chain reaction (PCR) for schistosomiasis DNA also yielded negative results. The medical team also explored infectious diseases and autoimmune conditions through various studies, all of which returned negative findings.

In an effort to further investigate the case, a TAP (Thorax, Abdomen, Pelvis) com-

puted tomographic (CT) scan was performed. This scan revealed calcifications in the bladder, which raised concerns and prompted a referral to a urologist. During the urology appointment, a flexible cystoscopy was conducted, revealing nacreous urothelial lesions within the bladder. These lesions appeared pearly or iridescent in nature.

Subsequently, bladder biopsies were performed for further analysis. The anatomicopathological examination of the biopsy samples revealed the presence of schistosome eggs, which provided a definitive diagnosis of vesical schistosomiasis.

Urogenital schistosomiasis primarily affects the bladder and urogenital system, potentially leading to complications like bladder dysfunction and malignancy. The addition of cutaneous schistosomiasis, while uncommon, underscores the multifaceted nature of the disease. This case highlights the need for interdisciplinary collaboration and a multi-step diagnostic approach, emphasizing the importance of maintaining suspicion for parasitic infections even in asymptomatic individuals. Cystoscopy proves pivotal in diagnosing urinary schistosomiasis, with this case showcasing the broader impact of schistosomiasis on dermatological health.

## CT 10

### RETIRADO

## CT 11

### LIPOSSARCOMA DO CORDÃO ESPERMÁTICO

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**Introdução:** Os sarcomas são tumores com baixa incidência e, portanto, pouco reportados na literatura. Os sarcomas paratesticulares fazem parte de um subtipo ainda mais raro dos sarcomas dos tecidos moles, correspondendo a 1% da totalidade. São categorizados com base na sua localização

anatómica, sendo o cordão espermático o foco mais prevalente, com o lipossarcoma a surgir como subtipo histológico predominante.

O diagnóstico assenta no exame objetivo, apoiado de métodos de imagem, apesar de só poder ser confirmado pela análise histopatológica. As recomendações relativas ao tratamento são baseadas em estudos de caso e pequenas séries, dada a ocorrência rara deste diagnóstico. Deste modo, o tratamento mais aceite passa pela abordagem multimodal a incluir orquiectomia radical e, em casos selecionados, RT adjuvante.

**Objetivos:** Estabelecer uma comparação entre a abordagem diagnóstica e terapêutica existente na literatura e a verificada em estudos de caso, assim como os seus resultados. Complementar os estudos já existentes com mais casos de forma a que, futuramente, se possam desenvolver *guidelines* assentes em evidência robusta.

**Material e métodos:** Reuniram-se artigos científicos existentes nas plataformas *online* disponíveis, e fez-se uma revisão da literatura. Procedeu-se, ainda, ao levantamento dos casos clínicos de lipossarcoma do cordão espermático diagnosticados ao longo dos últimos 10 anos em duas unidades hospitalares, o Instituto Português de Oncologia de Lisboa Francisco Gentil e o Centro Hospitalar Universitário de Lisboa Central. Recorreu-se às plataformas de uso clínico de ambas as unidades hospitalares, assim como aos arquivos da Anatomia Patológica, tendo sido identificados dez doentes com este diagnóstico histológico.

**Resultados:** Selecionaram-se 6 artigos científicos para revisão da literatura, publicados entre 2012 e 2021.

Na totalidade dos 10 casos selecionados, procedeu-se a orquiectomia radical após a suspeita clínica de malignidade dada pela anamnese, exame objetivo e métodos de imagem. Em 5 dos 10 casos clínicos estudados, decidiu-se a realização de

RT adjuvante. Os registos clínicos permitiram a identificação do critério que levou à decisão do cumprimento de terapêutica adjuvante em apenas um dos casos. Apenas um doente apresentou efeitos secundários decorrentes da radioterapia. Em alguns dos doentes, não foi possível identificar durante quanto tempo mantiveram seguimento, por terem sido referenciados de outras unidades hospitalares apenas para intervenção e orientação de decisão terapêutica, mantendo vigilância nesses centros.

**Discussão/Conclusões:** Os tumores malignos primários do cordão espermático são entidades com baixa prevalência, com idade de apresentação mais comum a rondar os 50-60 anos. A ecografia é o método de imagem inicial estudo de qualquer anomalia escrotal ou do cordão, uma vez que distingue lesões intra de extratesticulares. No entanto, a ecografia não é específica e a TC e a RMN podem ser úteis para melhor definição da localização, morfologia e extensão da massa. O diagnóstico definitivo, por sua vez, é dado pela análise histopatológica.

O tratamento, por sua vez, assenta na cirurgia apoiada de RT em determinados casos.

Destacam-se algumas limitações no presente trabalho, assentes essencialmente na obtenção da informação clínica completa dos casos clínicos, dada a identificação de registos médicos incompletos, dificultando a sua interpretação. Revela-se fundamental o levantamento de casos e estudo dos mesmos, de forma a que se possam desenvolver diretrizes diagnósticas e terapêuticas de lipossarcomas paratesticulares, diagnósticos raríssimos, com menos de 200 casos reportados na literatura.

## CT 12

### RETIRADO

## CT 13

### UROMONITOR-V2®: CLINICAL VALIDATION AND PERFORMANCE ASSESSMENT OF A URINARY BIOMARKER FOR RECURRENCE IN NON-MUSCLE INVASIVE BLADDER CANCER PATIENTS

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**INTRODUCTION:** Bladder cancer (BC) remains the most common malignancy of the urinary tract with non-muscle BC (NMIBC) representing the vast majority of patients. The current standard of care (SOC) follow-up in NMIBC patients demands an intensive schedule and requires costly and burdensome methods, driving the development alternative, non-invasive, cost-effective methods that may complement or alternate with cystoscopy and cytology. Uromonitor-V2® is a urine biomarker test detecting hotspot mutations in three genes (*TERT*, *FGFR3*, and *KRAS*) for evaluation of disease recurrence. The aim of the current study was to assess its performance comparing it to the current SOC methods.

**METHODS:** A total of 528 NMIBC surveillances from 490 individual patients were enrolled from December 2021 to June 2023. All subjects were submitted to SOC methods and provided a urine sample prior to undergoing cystoscopy for Uromonitor-V2® analysis. Sensibility, specificity, positive predictive value (PPV) and negative predictive value (NPV) were calculated for recurrence and compared to gold-standard trans-urethral resection (TURBT) pathology.

**RESULTS:** Uromonitor-V2® displayed a sensitivity of 87,23% with only 6 recurrences

failing to be detected by the urinary biomarker test, a specificity of 99,23%, a positive predictive value (PPV) of 93,18% and a NPV of 98,76%. Cystoscopy showed a total of 22 (31,88%) false positives not confirmed by TURBT while Uromonitor-V2® presented only 3 positive tests where no suspected lesions were found in cystoscopy. Sensitivity, specificity and NPV values for Uromonitor-V2® also remained high across all NIBC grades and stages.

**CONCLUSION:** In the present trial, we confirmed that the Uromonitor-V2® biomarker test represents a reliable tool in the detection of NMIBC recurrence in patients undergoing routine surveillance regardless of stage and grade. It provides either an alternative or a compliment to the current SOC methods as it provides rapid results and a non-invasive option, potentially improving patients' quality of life and helping reduce the economic burden of NMIBC follow-up. To our knowledge this is the largest single center study assessing Uromonitor-V2®'s performance, and thus validating its usefulness in clinical practice.

#### CT 14

### IS SURGEON IMPRESSION ON ATHEROSCLEROTIC STATUS OF DECEASED DONOR INFORMATIVE ABOUT THE OUTCOME OF GRAFT FUNCTION AFTER KIDNEY TRANSPLANT?

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**Introduction and objectives:** Kidney transplantation is the best option for the treatment of end-stage renal disease, but it is limited by the number of available organs. Allograft refusal after organ harvesting due to bad features at biopsy may limit the number of organs available. The impact of

atherosclerotic status of deceased donor has been under debate.

**Aim:** We hypothesize that surgeon impression on the atherosclerotic status of deceased donor during organ retrieval may be informative about the outcome of renal graft function after transplant.

**Materials and Methods:** This is a prospective study where 62 deceased donors were evaluated (surgeon impression) at the moment of organ harvesting between November 2022 and May 2023 according to atherosclerotic status. Allograft quality (very bad, bad, reasonable, good, very good), renal artery atherosclerosis (none, mild, moderate, severe), renal artery ostium aspect (open, narrow, with plaque), aorta atherosclerosis (none, mild, moderate, severe) and donor fatty tissue (low, normal, plenty) were evaluated as macroscopic features. For a limited number of patients (n=33) inferior mesenteric artery endothelium dysfunction was evaluated as microscopic atherosclerotic feature according to American Heart Association Criteria. Kidney selection for transplant was based on *Remuzzi* score on biopsy or graft aspect. Donors and recipients' data were collected. Correlation between macrovascular features of the donor and outcome of graft function was explored.

**Results:** Our cohort had 59% (n=56) male donors, with median age of 59.9 years (SD  $\pm$  15.7). A total of 124 organs were harvested: 34 were rejected due to macroscopic aspect or biopsy, 7 organs allocated to another center and 81 grafts were transplanted in our center. Regarding graft function 62% of patients (n=50) had immediate graft function, 5% (n=4) had slow graft function, 27% (n=22) had late graft function and 6% (n=5) had primary dysfunction. All patients with acute rejection were submitted to transplantectomy. 75% of patients had immediate diuresis after surgery. Median serum creatinine at one, three and six months after surgery was 1.82 mg/dL

(SD  $\pm$  1.03), 1,58 mg/dL (SD  $\pm$  0.48) and 1,55 mg/dL (SD  $\pm$  0.50), respectively. Inferior mesenteric artery evaluation revealed slight endothelial alterations (grade  $<2/8$ ) in 25 patients (76%) with median lumen reduction about 10%. Concerning macroscopic features of rejected grafts only 4 out of 34 were considered good by the surgeon, being the remaining appreciated as very bad, bad or reasonable. On the opposite, only 1 out of 81 grafts implanted were classified by the surgeon as bad, being the remaining considered reasonable (n=22), good (n=47) or very good (n=5). Regarding the remaining donor macroscopic features 72% of patients (n=58) had low or normal fat tissue, 21 % (n=17) had moderate to severe aorta atherosclerosis, 83% (n=67) had none to mild renal atherosclerosis, 77% (n=62) had an open normal renal artery ostium. None to mild renal atherosclerosis and good or very good quality of the graft show a tendency for achieving better outcomes in terms of renal graft function, such as immediate function and lower levels of plasmatic creatinine at first and third month, although results are not statistically significant ( $p>0.05$ ). Patients who had acute kidney rejection tend to have reasonable good quality and moderate to severe renal and aorta atherosclerosis, but again with no statistically significant results ( $p>0.05$ ).

**Conclusion:** Our study outlines the potential role of macroscopic atherosclerotic donor status at the moment of organ retrieval as informative data for renal graft function. Further and continuous analysis may allow more solid results.

## CT 15

### QUE SCORE É MELHOR PARA PREVER COMPLICAÇÕES NEFRECTOMIA PARCIAL: RENAL, PADUA, C-INDEX?

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**Introdução:** O tratamento de eleição para tumores renais localizados é a nefrectomia parcial (NP), pois permite preservar a função renal e diminuir o risco cardiovascular associado à doença renal crónica, com *outcomes* oncológicos equivalentes à nefrectomia total. Durante o planeamento cirúrgico é necessário averiguar a sua exequibilidade, com vista a minimizar o risco de complicações. Assim, foram desenvolvidos vários *scores* nefrométricos, que avaliam as características anatómicas do tumor, permitindo uniformizar a descrição das lesões e classificar as mesmas em diferentes graus de complexidade. Os mais utilizados são o RENAL, PADUA e o C-INDEX.

**Objetivos:** Comparar os 3 *scores* e concluir qual deles melhor se correlaciona com taxa de complicações.

**Material e métodos:** Estudo retrospectivo com revisão todos os doentes submetidos a NP no nosso centro hospitalar de 1/1/2017 a 31/12/22, com recolha de dados sobre as características do doente, do tumor e *outcomes* cirúrgicos. Os *scores* foram aplicados por um radiologista e posteriormente foi feita uma divisão em grupos de risco consoante os artigos originais. O software aplicado para a análise estatística foi o IBM SPSS *Statistics*.

**Resultados:** 99 doentes foram submetidos a NP, contudo 23 foram excluídos por ausência de acesso aos exames pré operatórios. A idade média foi 62.2 anos  $\pm$ 11.05 e 60.5% dos doentes eram do sexo masculino. O *Charlson score* médio foi

de 4.20. 39.5% das massas localizavam-se à esquerda e 11.8% em rim único. O diâmetro médio foi de  $2.92 \pm 1.57$  cm. 61.8% das lesões eram >50% exofíticas e 53.9% localizadas na margem lateral. Envolviam o seio renal em 27,6% e o sistema excretor em 38,2%. Quanto a proximidade do seio renal/excretor, 51.3% encontrava-se a <4 mm. Quanto à distribuição dos doentes por classe de risco nos respetivos scores em baixo, médio e alto grau: RENAL (44.7%, 51.3%, 3.9%) PADUA (48.7%, 23.7%, 27.6%), C-INDEX (23.7%, 76.3%).

No que toca a abordagem cirúrgica, 13.2% foi por via aberta e 86.9% por via laparoscópica. As principais complicações cirúrgicas foram rutura do excretor (n=7), e lesão iatrogénica de órgãos vizinhos (n=4). Quanto às complicações pos-operatorias, 7 foram graves segundo a classificação de Clavien-Dindo (Clavien Dindo 3 e 4). 80.3% das lesões eram malignas, sendo o tumor mais frequente o carcinoma de células renais de células claras.

No que concerne a fatores anatómicos o diâmetro, envolvimento do seio renal, do excretor, bem como a proximidade do seio renal associaram-se a mais complicações cirúrgicas e maior tempo de isquemia ( $p < 0.005$  em todas as análises). O envolvimento do seio renal e o diâmetro associaram-se perda hemática ( $p 0.028$ ) e ( $p 0.011$ ) respetivamente. Também foi verificada uma associação entre o diâmetro e dias de internamento ( $p 0.024$ ) e complicações pós operatórias ( $p 0.036$ ).

Quando analisados os *scores* por classe de risco, existe uma associação dos 3 com as complicações cirúrgicas ( $p < 0.005$ ). Verificou-se associação entre o C-index e complicações totais (complicações cirúrgicas e pós operatórias) ( $p 0.022$ ). Não foram encontradas correlações estatisticamente significativas entre as classes de risco e as perdas hemáticas, tempo de isquemia e dia de internamento. Para as complicações cirúrgicas, pós ope-

ratórias e complicações totais o score C-INDEX tem maior área sob a curva face aos restantes *scores*.

**Discussão/conclusões:** Uma lesão com um maior diâmetro, envolvimento de seio renal e excretor, bem como maior proximidade ao seio renal, está associada a maior dificuldade intra-operatória, sendo traduzido por um maior tempo de isquemia. Os 3 scores conseguem prever quais os tumores mais complexos, existindo uma correlação com as complicações cirúrgicas, contudo apenas o C-INDEX correlaciona-se com as complicações totais. Comparando os 3 scores, o C-INDEX revelou-se ser o melhor preditor quer das complicações cirúrgicas quer das complicações pós operatórias.

## CT 16

### EVALUATION OF COMPLICATIONS AND SURVIVAL OF SURGICAL COMPLEX KIDNEY TRANSPLANTS

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*Hospital Universitario 12 octubre*

**INTRODUCTION AND OBJECTIVES:** Kidney transplantation is the treatment of choice for end-stage renal disease, offering better quality of life and lower morbidity and mortality rates compared to dialysis. Kidney transplantation with grafts and recipients with advanced arteriosclerosis is becoming more frequent. Our objective is to analyze post-transplant complications and the survival of kidney transplants with vascular complex grafts.

**MATERIALS AND METHODS:** A retrospective observational study of 1848 kidney transplants performed in our centre between 2005 and 2018 was carried out. They are divided into surgically complex



and non-complex kidney transplants. Complex kidney transplants are defined as recipients with type 2 diabetes mellitus and age over 60 years old, vascular complexity (grafts with 3 or more arteries, without vascular patch, requiring endarterectomy during surgery, or history of vascular prosthesis). We analyzed the incidence of complications by comparing complex and non-complex transplants.

**RESULTS:** We collected a total sample of 1848 cases and 784 (8.3%) were considered complex. In complex kidney transplants, it was observed higher incidence of venous vascular thrombosis, 3.5% vs. 2.4% ( $p=0.151$ ); arterial thrombosis 3.4% vs. 0.9% ( $p<0.001$ ) and arterial stenosis; 10.9% vs. 8.8% ( $p=0.145$ ). The rate of venous and arterial thrombosis in diabetics over 60 years of age was 6.2% ( $p=0.007$ ). Additionally, there was a greater incidence of ureteral fistula, 7.5% ( $p=0.042$ ), and surgical wound infection, 17.4% ( $p=0.001$ ). The highest incidence of arterial and venous thrombosis was observed in those who required endarterectomy during the transplant, 16.7% ( $p<0.001$ ).

Overall survival in non-complex cases after 1 and 3 years was 90% and 87%, respectively and in complex cases was 84% and 78%, respectively. In diabetic patients over 60 years, survival after 1 and 3 years was 78% and 64%.

**CONCLUSIONS:** Surgically complex kidney transplants, from a vascular perspective, are associated to a higher rate of vascular complications. Therefore, an accurate and detailed evaluation of these patients prior to transplantation and proper surgical planning to optimize outcomes is necessary. Although the results in terms of survival are relatively lower than those in non-complex transplants, the majority of grafts remain functional in the long term.

**KEYWORDS:** Kidney transplant, vascular thrombosis, survival

## CT 17

### TUMOR SIZE IN ADRENAL MASSES: ITS INFLUENCE IN THE INDICATION OF ADRENALECTOMY AND SURGICAL OUTCOMES. SINGLE-CENTRE EXPERIENCE.

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HOSPITAL RAMON Y CAJAL

**Introduction and Objective:** Assessment of the relevance of tumor size in estimation of malignancy risk and outcomes of adrenalectomy.

**Material and Methods:** We reviewed the histological results and surgical outcomes in a retrospective single-centre cohort of patients, with no previous history of active extraadrenal malignancy, who presented adrenal tumours and consecutively were operated in our centre during the period of January 1, 2010, through December 31, 2020. We compared results based on the size, smaller and larger than 4 cm, 5 cm, and 6 cm.

**Results:** We collected a total sample of 131 patients who underwent adrenalectomy. Of them, 76 (58%) had adrenal masses  $\geq 4$ cm; 47 (36%) were larger than 5 cm and 28 (21%) larger than 6 cm. Attending to histological results: adrenal carcinoma (ACC) was identified in 7 patients, adrenocortical adenoma (ACA) in 76, pheochromocytoma in 36, cortical hyperplasia in 8 and myelolipoma in 4. Baseline characteristics are reported in **Table 1**.

Lesions categorised as ACC were mostly  $\geq 50$  mm (median tumor size: 78 mm (range 50-170)), had radiodensity  $>40$  Hounsfield units (median 70 (range 43-150)) and low-lipidic content in the CT.

The following table shows how the higher the size of the lesion, the greater the risk of ACC and pheochromocytoma. (**Table 2**). Tumor size was quite good for the pre-

diction of ACC (AUC-ROC: 0.883 [0.796-0.970]). The cut-off was 56 mm (Sensitivity 85.7%, specificity 80.6%). The variables strongly associated to an increased risk of ACC were: tumour size ( $p=0,003$ , OR:1,03 [1.01-1.05]), presence of necrosis in CT ( $p=0,01$ , OR:11,1 [2,07-59,86], and radiodensity  $>40$  HU ( $p=0,00$ ).

Unilateral laparoscopic adrenalectomy was performed in 102 patients and open adrenalectomy in 24. Mean tumour size were 38.8mm ( $\pm 17.74$ ) and 71.4mm ( $\pm 48.57$ ), respectively ( $P=0.024$ ).

Intraoperative complications were identified in 14 patients (10.7%) and bleeding was the most frequent ( $n=8$ ). Postsurgical complications appeared in 6.7% ( $n=8$ ), hemodynamic instability the most common ( $n=2$ ).

The risk of complications was independent of tumor size. However, it has been observed a tendency to develop more complications as the tumor size increases: 10.9% of tumours  $<40$ mm presented complications (intraoperative or postsurgical) compared to 28.6% of tumours  $>60$  mm ( $P=0.059$ ).

Hospital stay was longer in patients who developed intraoperative or postsurgical complications: mean stay of 5.8 days ( $\pm 4.31$ ) vs 3.4 days ( $\pm 1.35$ );  $P=0.037$ . In addition, hospital admission was also prolonged in patients who underwent open approach compared to laparoscopic surgery: 5 days ( $\pm 3.12$ ) vs 3.4 days ( $\pm 1.82$ );  $P=0.029$ .

**Conclusions:** The risk of malignancy adrenal masses increased as tumor size was larger than 40mm. ACC was associated with size  $>50$ mm, necrosis and radiodensity  $>40$  HU in CT. The risk of complications was independent of tumor size but hospital stay was longer in patients with complication and open approach.

## CT 18

### A NEW LONG-ACTING URETHRAL ANESTHETIC GEL TO BE USED IN CATHETERIZATIONS, SURGERIES AND ENDOSCOPIES

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**Introduction:** Urethral pain was described as the most frequent and distressful complaint after surgery for 87% of catheterized urological patients. It is observed by urologists on a daily basis and is a well-known symptom for patients during catheterization, endoscopies and other procedures.

A product that might alleviate it would be a major advance in the management of these patients and would significantly improve their quality of life. We developed a new long-acting anesthetic gel, combining short- and long-acting anesthetic drugs with the regular components of gels for urethral administration.

**Objectives:** To develop a new long-acting urethral gel to be used in patients submitted to surgery, bladder catheterization and urological endoscopies to decrease urethral pain in a more efficacious and lasting way. The use of this gel also intends to decrease painkillers use and patients' unrest after surgery.

**Material & Methods:** A new urethral gel with a formulation combining short- and long-acting anesthetic drugs was developed and studied in animal models. Efficacy and safety were addressed.

The viscosity of the formulation was optimized. The viscosity studies were performed using a rheometer and the accessory cone/plate. The best concentration and sterilization doses were determined. Bioburden and sterility studies were used to quantify microbial contamination. Samples were submitted to a E-beam treatment. Sterility test was performed according with *European Pharmacopoeia*. Formulations with bupivacaine or ropivacaine were studied and optimized. The anesthetic potential of the lubricants

formulated was analyzed in a population of twenty young adult male rats. A Latin square design was used: each animal undergone all tests, in specific sequences. For each animal, the anesthetic vehicle was applied to the glabrous skin of the respective hind paw. Stimuli were applied immediately before the application of the local anesthetic (0') and then at 5', 15', 30', 60' and 120'. The contralateral paw was used as an internal control. In all trials, the measurement was performed by a researcher blinded to the experimental condition. The effect of the compound in nociceptive responses was addressed using 2 nociception tests: Hargreaves, for thermal sensation and Randall-Selitto/paw pressure tests, for mechanical sensation.

The resistance of introduction of a catheter was evaluated in a porcine model - a population of 5 healthy females between 30-35 kg. 3 animals were catheterized with the new lubricating gel and 2 were control. All were anaesthetized under general inhalation anesthesia and catheterized in the supine position. The ease of inserting the catheter was assessed using a scale of resistance (little, medium or high resistance). Histopathological analysis was also performed. The in vivo biocompatibility of lubricating gel was assessed based on the inflammatory reaction produced in the bladder and urethra. Five samples from bladder and urethra of each of the study subjects were placed in formalin.

**Results:** Regardless of the analytical technique, none of the samples showed growth of bacteria, yeasts or parasites. Across the 2 test and the 2 experimental conditions, 2400 data points across 4 sessions were evaluated. For each condition/time point, 3 values were obtained. A main effect was found in the thermal stimulation ( $p < 0.001$ ). Post Hoc analysis revealed that the paw treated with the analgesic solution presented statistically significant higher latencies than vehicle treated ( $p < 0.001$ )

and contralateral paw ( $p < 0.001$ ). When accounting for the effect of the drug post application time, again it was possible to observe an effect of the analgesic particularly at the initial time points. The compound seems to have an effect on the heat evoked nociception increasing the average response latencies. In all the animals of the study group, the catheter was easy to place and introduced without any resistance or sensation of urethral friction. The scale evaluation was of "little resistance" for all animals in this group. In the control group, there was a slight resistance to advancement. The fragments of the bladder and urethral of the study and control groups showed all walls were covered by intact urothelial epithelium, with no evident inflammatory process when compared with control.

**Discussion/Conclusions:** The results of our study confirm that our gel is both safe and efficacious. Results are very promising and recommend further studies in humans. The objective of our work is to obtain a product that may allow patients to stop suffering of urethral pain and discomfort after surgery, in catheterizations and endoscopies.

## CT 19

### NAVIGATING THE UNCOMMON: LITERATURE REVIEW AND CLINICAL CASE PRESENTATION OF NEOBLADDER-TO-VAGINA FISTULA MANAGEMENT

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**Introduction:** Neobladder fistulas to the vagina are a rare but significant condition that can arise after a radical cystectomy (RC) and urinary diversion procedure. It's crucial to comprehend the consequences, causes, and available treatments for this

condition. These fistulas are linked to a number of risk factors and causes including surgical complications, radiation therapy, and chronic inflammation and can result in serious problems, such as urinary incontinence, infections and diminished quality of life. Their management may include supportive care, medical treatment and surgical repair. The size and location of the fistula, the patient's general health, and other unique characteristics all influence the treatment option.

**Objectives:** In this literature review and case presentation, we discuss a case of a Neobladder-Vaginal Fistula (NVF) successfully treated by surgery and explore the fundamental aspects of these fistulas, shedding light on the clinical significance and challenges they pose for both patients and urologists. Additionally, we will touch upon the potential risk factors and treatment strategies associated with this condition.

**Material and Methods:** We present the case of a 59-year-old caucasian woman who developed continuous urinary incontinence 4 months after undergoing a pelvic organ-preserving RC with complete anterior vaginal wall preservation for a localized muscle invasive bladder cancer. Intra-operatively a direct inadvertent injury to the anterior vaginal wall was reported and immediately corrected with a continuous suture of polyglycolic acid. In the post-operative period, she developed an abscess in the pelvic cavity successfully treated with antibiotics. During a cystoscopic evaluation a fistula to the vagina of about 8 millimeters at 6 o'clock was diagnosed and confirmed after speculum examination. The patient was proposed to a Transvaginal NVF Repair which involved circumferentially incising the fistula tract, establishing a plane between the neobladder serosa and the vaginal epithelium, followed by a multi-layered transvaginal closure with interrupted polyglycolic acid sutures. No flap

interposition was performed. A 20 Fr urethral catheter was placed for 21 days and removed after a cystogram. Initial repair was successful and the patient remains continent during daytime at 8 months follow up.

**Results:** NVF is rare and literature reports it occurs at an incidence of 0–10%. Timing of fistula occurrence is variable due to varied comorbidities deferring diagnosis following initial surgical intervention, with most diagnosed in the 3–5-month range. One of the primary risk factors for development of NVF is direct injury to the anterior vaginal wall at the time of RC, as was reported in our case. Conservative methods are rarely effective and will only postpone the need for surgical repair. Most series suggest a vaginal approach as it carries the least morbidity with acceptable clinical outcomes in comparison with an abdominal approach which should be reserved for particularly large NVF or in the setting of vaginal fibrosis. In a relatively large series 8 patients had a successful vaginal fistula repair (61%) but only 5 patients ultimately retained their neobladder. The remaining 7 patients underwent conversion to non-orthotopic diversions either due to ineffective fistula repair or severe urinary incontinence despite further interventions.

**Discussion/Conclusions:** Understanding NVF is vital for urologists and patients alike. Even though they are uncommon, their impact on a patient's physical and emotional well-being can be profound. Early recognition, timely intervention, and ongoing support are essential components of effectively managing this condition, ultimately improving the lives of those affected by it. For NVF repair, the transvaginal approach yields successful surgical outcomes. However, women should be counseled regarding the dangers of recurrence and incontinence.

## CT 20 RETIRADO

### CT 21 A GAME-CHANGING DIGITAL PLATFORM FOR ALL MEN OVER 45 AND THEIR FAMILIES

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**Introduction:** Prostate diseases are one of the most frequent diseases in men. Prostate cancer is known to be the 1<sup>st</sup>/2<sup>nd</sup> most frequent cancer in men in western and other countries and is the 2<sup>nd</sup> most frequent cause of oncological death in many of those. Benign hyperplasia is ubiquitous around the world and highly prevalent. Prostatitis is also very common and affects younger as well as older men. Men over 45 (and even younger) are overwhelmed by prostate problems. Healthy men often don't know when and how to be evaluated. Men with benign diseases are commonly proposed for different therapeutic approaches and have frequent doubts regarding the best treatment option. Men with prostate cancer feel frequently "lost" either after the diagnosis or along the pathway of treatment and follow-up (including initial treatment, recurrence and progression). Men fear over prostate diseases is therefore a huge burden. Ignorance and fear keep men away from docs. All men over 45 are potentially affected, but families are affected as well! Many don't know when, where or who to address prostate problems and, when evaluated, many are confronted with different / contradictory medical opinions. This causes great distress for both men and families. Digital health technology is being increasingly used to help patients to be better informed, manage their conditions and have personalized orientation, regarding their specific clinical situation. A digital platform might be the answer to patients with prostate problems. We de-

veloped a Progressive Web Application, a digital health services platform, to help all men that want to know more about how to address their specific prostate problem.

**Objective:** To develop a platform to help all men over 45, and their families, to deal with the prostate burden, in all stages of their lives and their diseases, in a one-fits-all solution.

**Material & Methods:** We developed a digital health service platform that:

Intends to be intuitive

Adapts to users' needs

Covers all prostate pathologies

May accompany the entire "journey" of men

Provides personalized information and reports

Men may provide demographic data, health and clinical information, results of exams already performed, possible previous treatments and their results. Using validated data from the most significant clinical studies and the guidelines of the main world urologic associations, our platform may calculate different risks in several clinical situations, using validated risk calculators. Personalized reports may be produced, if requested. Close monitoring and follow-up of different clinical situations is another feature of this digital health platform.

**Results:** 200 men over 45, with or without symptoms, previous exams or previous diagnosis, having or not already been submitted to previous treatments, were allowed to access to the platform. Most found the platform intuitive, user friendly and providing useful information independently of the clinical situation of men. More than 70% of men already being followed for prostatic diseases found new and useful information regarding their specific clinical condition. More than 80% of users stated they will keep using the service, even though they are followed by their GP or urologist. Most stressed this

would be wonderful tool for recurrent life-long use, after the first access.

**Discussion/Conclusions:** Growing world population and increasing life expectancy, along with the growing use of digital technologies in healthcare all of us have being witnessing, may anticipate an increase in prostate problems and an increasing number of men using digital health technologies to address those diseases. There are many apps and online sites/services that address prostate problems. These are usually limited to one pathology, one stage of a pathology, one specific situation or one particular treatment of one of the prostatic diseases. More than a simple app, our platform is based on a PWA (Progressive Web Application) concept, working as a SAAS (software as a service). Increasing health literacy and empowering men to deal with prostatic problems is mandatory. Easing access to clinical validated info is mandatory to ensure that correct guidance is given. Adapting general recommendations and guidelines to the specific situation of an individual person is also vital to make sure that a particular clinical situation is addressed in the best possible way. Specialists in specific medical areas are best positioned to provide the most relevant data to create the adequate decision trees that patients should have access to. Personalized medicine is more than a jargon that, also in the field prostatic disease, is becoming more and more recommended.

## CT 22

### RE-RTU-V: SERÁ POSSÍVEL SELECIONAR MELHOR OS DOENTES?

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**Introdução:** A neoplasia vesical é a 10ª mais diagnosticada a nível mundial. A ressecção transuretral vesical (RTU-V) é o procedimento inicial aplicável a estes tumores e essencial não só para o seu tratamento, como também para um diagnóstico e estadiamento correctos. Uma segunda RTU-V (re-RTU-V) é recomendada 2 a 6 semanas após a primeira ressecção caso esta tenha sido incompleta, não haja presença de detrusor na amostra (excepto Ta baixo grau/G1 e CIS primário) e nos tumores T1.

Com este estudo pretende-se avaliar se existem características preditoras de doença residual ou *upstaging* na segunda ressecção, que permitam seleccionar melhor os doentes que serão submetidos a re-RTU-V.

**Materiais e Métodos:** Avaliação retrospectiva dos doentes submetidos a re-RTU-V no nosso departamento entre 2014 e 2022. Os dados clínicos foram obtidos através da consulta do processo clínico electrónico de cada doente.

**Resultados:** Dos 94 doentes incluídos neste estudo, 18,09% eram do sexo feminino 81,91% do sexo masculino, com idade média de 72 anos. Cerca de ¼ dos doentes (75,53%) apresentava um tumor pT1 de alto grau na primeira RTU-V. O músculo detrusor estava presente em 56,38% das amostras na primeira RTU-V e 89,36% das segundas ressecções. Foi detectado tumor residual em 38,30% dos doentes na segunda ressecção e 8,51% dos doentes apresentaram uma alteração do estadiamento do seu tumor. Numa análise univariada, a única variável que mostrou correlação

com a recidiva foi o tempo até à segunda ressecção ( $p_{\text{adjusted}} = 0,038$ ). O sexo foi a única variável que mostrou uma correlação significativa com a presença de tumor residual ( $p_{\text{adjusted}} = 0,007$ ) e “upstaging” ( $p_{\text{adjusted}} = 0,014$ ). Da análise multivariada há a destacar uma correlação com o sexo ( $p_{\text{adjusted}} = 0,002$ ) e o diâmetro do tumor superior a 30mm ( $p_{\text{adjusted}} = 0,038$ ) com a presença de tumor residual na re-RTU-V. Considerando o *upstaging* apenas se mostrou uma correlação significativa com o sexo ( $p_{\text{adjusted}} = 0,012$ ). Apenas a presença de tumor residual na segunda ressecção ( $p_{\text{adjusted}} = 0,004$ ) mostrou uma correlação com o tempo até nova recidiva na análise multivariada.

**Discussão e conclusão:** Num sistema de saúde com recursos limitados, onde é difícil dar uma resposta adequada em tempo útil aos novos diagnósticos de tumores vesicais e à necessidade da realização de segundas ressecções, é importante verificar se existem critérios mais restritos que permitam seleccionar melhor quais os doentes que necessitam desta cirurgia. Apesar das várias limitações, os nossos resultados valorizam o tamanho tumoral como factor de risco para a doença residual na re-RTU-V. A correlação desfavorável do sexo feminino com os vários *outcomes* é congruente com várias outras séries, onde apresentam uma doença mais avançada e com prognóstico mais desfavorável. Dado o impacto desta cirurgia nos doentes e no sistema de saúde, a sua necessidade deveria ser avaliada através de estudos prospectivos e aleatorizados.

## CT 23

### ADENOCARCINOMA DO ÚRACO – CASO CLÍNICO

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**Introdução:** O adenocarcinoma do úraco é um cancro raro, correspondendo a aproximadamente um terço de todos os adenocarcinomas da bexiga, a cerca de 0.01% de todos os tumores do adulto e a 0.5 a 2% de todas as neoplasias vesicais.<sup>1,2,3</sup>

**Caso clínico:** Homem de 70 anos de idade referenciado por hematuria e mucosúria com 2 meses de evolução, sem LUTS associados. Sem antecedentes pessoais de relevo. O exame físico demonstrou ausência de massas abdominais ou suprapúbicas; esfíncter anal normotónico, sem massas retais palpáveis, próstata de contornos regulares, lisa e sem nódulos suspeitos. Em exames auxiliares de diagnóstico: PSA 1.18ng/ml; Colonoscopia sem evidência de pólipos ou lesões suspeitas de neoplasia do trato gastrointestinal. O paciente realizou uma Ecografia Renovesical que evidenciou: “imagem nodular com vascularização periférica da cúpula vesical, de 44x42x34 mm, possível quisto do Úraco”; De modo a esclarecer o achado efectuou uma TC Toraco-Abdomino-Pélvica (TC TAP) que revelou: “formação nodular na cúpula vesical com cerca de 46x39 mm não sendo visível plano de clivagem com parede vesical”. O paciente foi submetido a cistoscopia que detetou: “Bexiga de boa capacidade. Imagem exofítica, de aspeto sólido, localizada na cúpula vesical, com cerca de 4 cm”; Citologia urinária negativa. Face aos achados clínicos e imagiológicos realizou uma ressecção transuretral vesical (RTU-V) da lesão descrita. A histologia revelou Adenocarcinoma do Úraco. Assim, doente com adenocarcinoma do úraco com extensão local vesical, sem evidência de adeno-

patias ou lesões metastáticas suspeitas em TC TAP, foi proposto para Cistectomia parcial associada a exérese do Úraco e Umbigo com Linfadenectomia íliaco-obturadora bilateral laparoscópica. O paciente foi submetido a cirurgia sem intercorrências. O relatório anatomopatológico relatou a presença de um adenocarcinoma mucinoso, bem diferenciado, do Úraco com invasão da muscular própria vesical, sem metástases ganglionares regionais. Umbigo sem alterações de natureza neoplásica. Segundo a classificação pTMN: pT2b N0 MO. Por ausência de forte evidência científica foi optada pela não realização de quimioterapia adjuvante, mantendo regime de vigilância periódica com cistoscopia e TC AP.

**Discussão/Conclusões:** O tumor do úraco é diagnosticado em estádios localmente avançados face à sua localização extra vesical. A maioria dos doentes são assintomáticos, podendo manifestar hematúria e mucosúria quando o tumor invade e provoca erosão vesical. O tratamento standard é a ressecção *en bloc* da cúpula vesical, úraco e umbigo associada a linfadenectomia íliaco-obturadora. A cistectomia radical poderá ser considerada tendo em conta o atingimento tumoral.<sup>1</sup> O maior risco de recorrência após cirurgia é reportado em pacientes com margens positivas, envolvimento ganglionar ou peritoneal, sem exérese umbilical.<sup>4,5</sup> Atualmente, não há evidência científica a suportar a realização de quimioterapia ou radioterapia, como terapêutica neoadjuvante ou adjuvante.<sup>1,6</sup> Contudo devem ser consideradas em pacientes com atingimento ganglionar e/ou metástases à distância.<sup>6</sup> Em suma, trata-se de um doente com o diagnóstico de adenocarcinoma localmente avançado submetido a tratamento standard. A histologia demonstrou margens negativas, ausência de doença ganglionar ou metastática e tumor bem diferenciado. Deste modo, a decisão de não realização de QT adjuvante parece a mais correta tendo em conta o

bem-estar e sobrevida livre de doença do paciente.

## CT 24

### **Radioterapia dirigida a metástases em PET-PSMA no cancro da próstata oligometastático – experiência preliminar**

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Centro Hospitalar e Universitário de Coimbra / Hospitais da Universidade de Coimbra

**Introdução:** A existência de um biomarcador (PSA) e de um exame de imagem altamente sensíveis (PET-PSMA), tornam o carcinoma da próstata um bom candidato a terapêutica dirigida às metástases quando oligometastático. A detecção precoce de doença metastática e tratamento dirigido com técnicas modernas de radioterapia, como a SBRT (*Stereotactic Body Radiotherapy*), provou, em dois estudos de fase 2, prospetivos e randomizados – *STOMP* e *ORIOLE* – diminuir significativamente a probabilidade de haver progressão da doença, e atrasar o início de terapêutica antiandrogénica (aLHRH).

**Objetivos:** Avaliar a eficácia e toxicidade de SBRT direcionada a metástases diagnosticadas por PET-PSMA em doentes com carcinoma da próstata oligometastático após tratamento primário cirúrgico com prostatectomia radical.

**Materiais e Métodos:** Análise retrospectiva de 24 doentes com doença metastática - menos de 3 lesões diagnosticadas em PET-PSMA, após tratamento inicial com Prostatectomia Radical, submetidos a SBRT entre Janeiro de 2022 e Maio de 2023. O *endpoint* primário do estudo foi a sobrevivência livre de progressão, definida como tempo decorrido até introdução de terapêutica com aLHRH ou aumento >25% do PSA nadir após SBRT, calculada com o método de *Kaplan-Meier*.



**Resultados:** Um total de 24 doentes com idade mediana de 73 anos (56-84) foram incluídos neste estudo. O tempo mediano entre a realização da cirurgia e o tratamento com SBRT foi de 81 meses (10-355). A maioria dos doentes submetidos a SBRT apresentava uma lesão secundária única (75%), sendo que os restantes apresentaram 2 ou 3 lesões metastáticas. A maioria das lesões secundárias irradiadas foram ganglionares (67%) - gânglios ilíacos externos, internos ou comuns, seguindo-se as lesões ósseas (25%) - esqueleto axial, apendicular ou ossos da bacia, e uma recidiva peri-anastomose. O PSA médio na data da SBRT foi de 1,66 e o PSA médio após SBRT de 0,46 ng/mL. Verificou-se uma descida superior a 50% do PSA prévio em 20 doentes, sendo que 11 dos quais (45,8%) atingiram mesmo valores de PSA indeseáveis após terapêutica dirigida. A média de tempo resposta bioquímica foi de 12 meses (IC95%, 10 a 15 meses). A mediana de tempo de seguimento foi de 8 meses (1-19meses). A sobrevivência livre de progressão estimada foi de 15,2 meses (IC95%, 12 a 18 meses) - mediana não alcançada. Após tratamento com SBRT 4 doentes iniciaram hormonoterapia com análogo LHRH, em média 6 meses após a radioterapia. Os doentes que apresentaram progressão tinham SUVs significativamente mais elevados na PET-PSMA pré-SBRT (60±40 vs 24±23, p<0,001). Nenhum doente apresentou progressão objetivada em exames de imagem ou clínica. Apenas um doente reportou agravamento dos LUTS após as sessões de SBRT, não havendo qualquer outro efeito adverso a reportar. Não se registou nenhum óbito na amostra apresentada.

**Discussão/Conclusão:** Na nossa experiência a SBRT prolongou em 15 meses o tempo até tratamento sistémico, com boas respostas bioquímicas e sem toxicidade valorizável. Reconhece-se no entanto que foi utilizada uma amostra pequena e com

pouco tempo de follow up, não existindo também um braço comparativo com doentes submetidos apenas a vigilância com mesmas características de recidiva. À luz da escassa literatura atual a SBRT é um tratamento seguro e aparentemente eficaz para doentes com carcinoma da próstata oligometastático, permitindo atrasar a progressão da doença e o recurso ao tratamento sistémico, apesar de não haver ainda evidência de que se consiga alterar a história natural da doença apenas com terapêutica dirigida às metástases.

## CT 25

### BIO-RA SCORE AS PREDICTOR OF PROGNOSIS IN CASTRATION RESISTANT METASTATIC PROSTATE CANCER RECEIVING RADIUM-233

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**Introduction:** Radium-223 prolongs overall survival in metastatic castration-resistant prostate (mCRPC) cancer patients with bone metastases according to the survival benefit observed compared to placebo in the ALSYMPCA trial. However, many studies showed that the benefit is lower than that reported in the trial, probably due to a suboptimal selection of patients. Therefore, the identification of prognostic factors to select mCRPC patients most likely to benefit from this treatment is needed. The BIO-Ra study combined clinical factors and peripheral inflammatory indices in a multifactorial score able to stratify the prognosis of these patients, and helping in the patient's selection for Radium-223 treatment. This score is composed of neutrophil-to-lymphocyte ratio, ECOG Score, number of bone metastases, alkaline phosphatase and prostate specific antigen

before treatment with Radium-223. In previous studies, BIO-Ra score was demonstrated to be a reliable prognostic tool with a potential added value in patient selection for Ra-223 treatment.

**Objective:** We studied the correlation between the BIO-Ra score and treatment completion with Ra-223 in the patients treated in our institution.

**Materials and methods:** Complete blood count was assessed before Ra-223 treatment calculating neutrophil-to-lymphocyte ratio (NLR: < vs.  $\geq 3.1$ ). Clinical factors included pre-treatment Eastern Cooperative Oncology Group performance status (ECOG PS: 0–1 vs. 2–3), number of bone metastases (<6 vs. 6–20 vs.  $\geq 20$ ), alkaline phosphatase (ALP: < vs.  $\geq 220$ ) and Prostate Specific Antigen (PSA) before treatment (PSA: < vs  $\geq 44$ ). This score identified three distinctive prognostic groups of mCRPC patients: the low-risk group (score 0–2), the intermediate-risk group (score 3–4), and the high-risk group (score 5–10). All data were analysed using a linear regression model, chi-square test and Kaplan-Meier survival curves. The statistical hypothesis tests with p-value <0.05 were considered significant. Statistical analyses were performed using SPSS software ver. 25.0 (IBM, Armonk, NY, USA).

**Results:** Between September 2015 and January 2022, 31 patients with mCRPC received treatment with Radium 223 in our center. The median overall survival (mOS) of the entire cohort was 15.39 months. Regarding the Bio-Ra Score, the low-risk group had 8 (26.7%) patients, the intermediate-risk group 6 (20%) patients and the high-risk group 16 (53.3%) patients. The observed Bio-Ra Score showed an inverse correlation with the mOS ( $r=-0.41$ ;  $p=0.034$ ). The sub group analysis showed a mOS of 22.43, 19.67 and 10.93 months for low, intermediate and high-risk patients, respectively.

**Conclusion:** According to this study, high-

er Bio-Ra Scores are associated with lower OS in mCRPC patients treated with Radium-223. Bio-Ra Score is a useful biomarker, with no increased costs and prognostic value. It may be particularly useful in helping clinicians identify patients who are at high risk of poor outcomes and who may benefit from alternative treatment options.

## CT 26

### NEFRECTOMIA PARCIAL ASSISTIDA POR ROBÔ HUGO™ RAS: EXPERIÊNCIA INICIAL DO CHUDSA

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**Introdução:** Desde o início dos anos 2000, com a evolução da cirurgia minimamente invasiva, a cirurgia assistida por robô representou uma inovação significativa. Várias plataformas robóticas foram descritas ao longo dos anos para diferentes especialidades. Neste contexto, o sistema Hugo™ RAS foi desenvolvido como uma plataforma robótica modular com quatro braços independentes, permitindo adaptar-se a procedimentos altamente diferenciados. A sua introdução teve como objetivo fornecer uma plataforma robótica alternativa que oferece uma experiência mais ergonómica e personalizada. Este sistema oferece várias vantagens, entre as quais uma posição mais ergonómica dos trocares e um espaço de trabalho mais amplo para o cirurgião ajudante. O primeiro modelo Hugo™ RAS em Portugal foi introduzido no Centro Hospitalar Universitário de Santo António (CHUdSA) no início do ano de 2023.

**Objetivo:** O objetivo deste trabalho é descrever a primeira série de nefrectomias parciais assistidas por robô (NPAR) Hugo™ RAS realizadas no CHUdSA.

**Material e Métodos:** Esta série inicial engloba 13 doentes consecutivos submetidos

a NPAR na nossa instituição entre maio de 2023 e julho de 2023. Todas as NPAR foram realizadas por abordagem transperitoneal, de acordo com a configuração modular de quatro braços pré-definida. As variáveis pré e pós-operatórias foram registadas e foi realizada uma análise descritiva.

**Resultados:** Foram realizados 8 procedimentos em rins esquerdos e 5 procedimentos em rins direitos. Nove (69%) massas renais eram classificadas como cT1a e 5 (31%) eram classificadas como cT1b. A média de idades dos doentes era de 61.0 ± 9.9 anos. O tamanho médio do tumor era de 33.1 ± 11.4 mm, e o R.E.N.A.L. score mediano de 7 (6-8.5). O tempo cirúrgico médio foi de 145.8 ± 31.5 minutos. A média do tempo de isquemia quente (TIQ) foi de 20.9 + 4.4 minutos. A mediana de perdas sanguíneas foi de 200 (75-400) mL. A mediana de dias de internamento foi de 3 (2.5-4) dias. Não se registou nenhuma complicação. Após análise histológica, confirmaram-se 3 (23%) lesões benignas e 10 (77%) malignas. Registaram-se 4/13 (31%) margens positivas no global da amostra. O Trifecta (definido com TIQ ≤ 25 minutos, ausência de margens positivas e nenhuma complicação) foi de 61.5% (8/13) na amostra global.

**Conclusão:** Esta é a primeira série em Portugal a demonstrar a exequibilidade da NPAR com Hugo™ RAS. Estes resultados iniciais são animadores e séries mais largas serão necessárias no futuro para avaliar as melhorias nos outcomes perioperatórios e oncológicos.

## CT 27

### PREDICTING KIDNEY TRANSPLANTATION RESULTS FROM NON-HEART BEATING DONORS: EXPLORING THE POTENTIAL OF KDPI

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**Introduction:** Circulatory death donors (CDD) are a growing source of kidney allografts amid current organ demand-supply imbalance. CDD grafts are subject to the added injury of warm ischemia time. The urge for as early as possible implantation precludes histological characterization of these grafts. Kidney Donor Profile Index (KDPI) is a well-established score for predicting the risk of graft failure in brain death donors. The aim of this study was to investigate the value of KDPI to predict graft function following kidney transplantation from CDD donors under extra-corporeal membrane oxygenation (ECMO).

**Methods:** We retrospectively reviewed all cases of CDD kidney transplantation under ECMO performed at our institution between 1<sup>st</sup> January 2020 and 30<sup>th</sup> June 2022. The cases for which KDPI score could not be calculated due to missing data were excluded. Electronic health records and national transplantation registry were reviewed, and data was retrieved and analyzed. This study of approved by our institution's ethics committee. Data confidentiality was assured.

**Results:** 36 DCC kidney transplants from donors under ECMO were performed during the timeframe of the study. Eleven were excluded due to lack of information precluding KDPI calculation. Median (IQR) donor age was 46 (20) years. Median (IQR) recipient age at transplant was 52 (20) and

women represented 40% of allograft recipients. Mean (IQR) KDPI was 45 (42,5). Three (12%) allografts displayed immediate function (IF), 17 (68%) had delayed graft function (DGF) and 5 (20%) showed primary non-function (PNF). No differences could be found between KDPI groups (<35; 35-85; >85) regarding allograft function or survival. Allograft KDPI was significantly higher in the group with PNF when compared with those with DGF (median 66 vs. 35,  $p=0,015$ ). The IF group had an unexpectedly high median KDPI (93), probably due to the low number of patients in this group, therefore conclusions are limited. KDPI did not correlate with estimated glomerular filtration rate (EGFR) at 6 months ( $r=-0,439$ ,  $p=0,056$ ).

**Conclusions:** In this pilot study, KDPI was significantly higher in the group of patients with primary non function. KDPI may be a valuable tool in the evaluation and allocation of kidney allografts from DCC donors under ECMO. Nevertheless, studies with a larger sample size are needed to establish its role.

## CT 28

### DOES ANTICHOLINERGIC BURDEN INFLUENCE THERAPEUTIC SUCCESS IN TREATMENT NAÏVE OVERACTIVE BLADDER PATIENTS?

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**Introduction:** Overactive bladder syndrome (OAB) is a bothersome chronic condition affecting the quality of life of both genders. Anticholinergic drugs (AC) are one of the cornerstones of OAB pharmacologic treatment. Recently, growing concern has surrounded AC's adverse effects. Anticholinergic burden (ABu) represents the cumulative effect of taking one or more medications with anticholinergic action in an individual and is quantifiable by several validated scales, such as the Drug Burden

Index (DBI). We aim to describe the ABu of treatment naïve OAB patients and investigate its relation to treatment success.

**Methods:** We retrospectively reviewed all patients referred to our outpatient clinic for OAB from 1<sup>st</sup> January 2022 to 31<sup>st</sup> December 2022. Exclusion criteria included neurogenic bladder; patients who already started on AC/mirabegron for OAB by the referring physician; history of pelvic radiotherapy; history of bladder cancer; post-void residual volume > 200 mL; clinically significant stress urinary incontinence; chronic pelvic pain syndrome, congenital urinary tract malformations, history of bladder surgery, history of midurethral sling or prostatic surgery, chronic kidney failure on dialysis. ABu was ascertained using Drug Burden Index. Data confidentiality was assured, and the study was approved by our institution ethics committee.

**Results:** During the study time frame, 42 treatment naïve OAB patients were referred to our outpatient clinic. Arterial Hypertension was the most frequently reported comorbidity affecting 59,5% of patients. Mean age was  $65,95 \pm 13,28$  years and 81% of patients were women. OAB wet was the most frequent OAB subtype as 78,8% patients reported associated incontinence episodes, using an average of  $2,7 \pm 1,4$  pads per day. Median (range) DBI was 0,05 (0-3,07); 21(50%) patients scored 0 on the DBI, 15 scored between 0 and 1(35,7%) and 6 (14,3%) scored more than 1. AC drugs were the treatment of choice in 97,6% of patients. Trospium chloride was the most prescribed drug across all DBI score groups (0;0-1;>1). Twenty patients (47,6%) stated OAB symptomatic improvement after therapy. Median DBI was significantly higher in patients reporting no improvement after AC therapy when compared with the group of patients reporting improvement ( $p=0,03$ ).

**Conclusion:** ABu is an important determinant of anticholinergic therapy success for

treatment naïve OAB patients. Therefore, physicians may need to consider using drugs targeting other pathways such as the beta 3 adrenergic receptor in those patients with higher ABu. Nevertheless, prospective studies are necessary to further study and confirm this relationship and establish clinical recommendations.

## CT 29

### PROSTATECTOMIA RADICAL ROBÓTICA EM PORTUGAL: DADOS INICIAIS DOS 50 PRIMEIROS CASOS NUM HOSPITAL TERCIÁRIO

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**Introdução:** A prostatectomia radical robótica (PRR) constitui um dos tratamentos de primeira linha do cancro da próstata localizado/localmente avançado em doentes com esperança média de vida superior a 10 anos. Em termos de controlo oncológico e complicações pós-operatórias é equiparável à prostatectomia radical laparoscópica e aberta. No entanto, em termos funcionais, parece ter um discreto benefício em relação à recuperação da continência precoce e função erétil. Aqui descrevo os resultados oncológicos e funcionais dos primeiros 50 casos da PRR realizados num hospital terciário em Portugal utilizando o sistema Da Vinci X (Intuitive Surgical Inc, EUA).

**Métodos:** Entre Janeiro e Julho de 2023, efetuou-se uma pesquisa dos registos médicos e cirúrgicos e foram incluídos todos os doentes submetidos a PRR. Foram registados dados relativos a: estadiamento inicial, técnica cirúrgica, evolução pós-operatória, anatomia patológica, complicações pós-operatórias e seguimento até aos 6 meses.

**Resultados:** No total foram incluídos 50 doentes. A idade média foi de 63 ± 5,66 anos, com um IMC de 26,9 ± 3,22 Kg/m<sup>2</sup>. O PSA total inicial médio foi de 10,52 ± 12,37

ng/mL e 77% dos doentes pertenciam ao estadiamento cT1c. A biópsia prostática revelou ISUP 2 e ISUP 3 em 50% e 30% dos casos, respetivamente. De acordo com a classificação de D'Amico, 80% dos doentes pertenciam ao grupo de risco intermédio, enquanto 10% e 8% correspondiam aos grupos de alto risco e localmente avançado. Todos os doentes foram submetidos a ressonância magnética multiparamétrica pré-operativamente. As classificações PIRADS 4 e PIRADS 5 corresponderam a 52,3% e 40,9% dos casos. Relativamente à técnica cirúrgica, foi usada a via transperitoneal anterior, tendo-se efetuado linfadenectomia alargada em 34%. O tempo cirúrgico médio foi de 144 ± 29 min e de 179 ± 41 min em doentes sem e com linfadenectomia, respetivamente. Efetuou-se preservação dos ligamentos puboprostáticos e dos feixes vasculonervosos em 75% e 88%. O tempo de internamento médio foi de 1,92 ± 0,8 dias e o tempo de algiação médio de 7,22 ± 1,28 dias. Cerca de 86% das complicações precoces (< 30 dias) foram Clavien-Dindo < 3, ocorrendo em 14 % dos casos. A anatomia patológica revelou os seguintes resultados: pT2a – 28%; pT2b – 4%; pT2c – 36%; pT3a – 20%; pT3b – 12%. Dos doentes submetidos a linfadenectomia (n=17), 12% apresentaram pelo menos um gânglio positivo. A percentagem de ISUP 2 e ISUP 3 na peça foi de 42% e 36%. Do ponto de vista oncológico, aos 2 meses o PSAT ficou indetetável em 54,5% dos doentes, sendo inferior a 0,01 ng/mL em 94% dos casos. A taxa de continência aos 3 meses / uso de penso de segurança foi de 75%, com 21 % dos doentes a apresentarem continência imediata. Aos 3 meses, todos os doentes apresentaram algum grau de disfunção erétil.

**Discussão / Conclusões:** Os nossos dados revelam que a PRR está associada a um tempo de internamento curto e a uma taxa de complicações precoces baixa, refletindo a sua natureza minimamente in-

vasiva. Os resultados do PSAT aos 2 meses atestam a sua eficácia em termos de controlo oncológico. Os resultados funcionais embora encorajadores ainda são imaturos, pois ainda não possuímos dados a médio e longo prazo.

### CT 30

#### **MUCINOUS TUBULAR AND SPINDLE CELL CARCINOMA OF THE KIDNEY – A RARE INDOLENT VARIANT OR SOMETHING MORE?**

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**Introduction:** Mucinous Tubular and Spindle Cell Carcinoma (MTSCC) is a rare variant of Renal Cell Carcinoma (RCC). MTSCC has been regarded as an indolent subtype of RCC conveying a good prognosis. However recently, some cases of MTSCC have been described presenting or evolving with metastasis, showing an aggressive behavior. We aim to describe MTSCC clinical characteristics, treatment, and prognosis, and identify immunohistochemical markers of clinical aggressivity.

**Methods:** We retrospectively reviewed all cases of MTSCC diagnosed at our institution from 1st January 2008 to 31st December 2022. Electronic health records were reviewed, and data were retrieved and analyzed. This study was approved by our institution's ethics committee. Data confidentiality was assured.

**Results:** We identified 8 cases of MTSCC among the 15 years of the study timeframe diagnosed in our hospital. Median age at diagnosis was 59 years (range 32 - 80) and half of the patients were women (n=4, 50%). In 75% of the patients presentation was incidental, while the other two presented with flank pain. One patient had metastasis at presentation, while the remaining cases were localized at the time of diagnosis. Six patients were

submitted to radical nephrectomy: 4 by open approach and 2 by transperitoneal laparoscopic approach. Two patients were submitted to a partial nephrectomy by an open approach. Mean (SD) post-operative hemoglobin drop was 2,18 (1,12) g/dL. Median follow-up was 36,5 months (range 2- 157). During the study timeframe, no other patients were diagnosed with local recurrence or distant metastasis. CK7 and Racemase were the most common immunohistochemical (IHC) markers applied and were diffusely positive in 5 cases tested. Two cases showed EMA positivity, two were immunoreactive to vimentin, other two cases were positive for PAX8 and only one expressed simultaneously CK19, CK8/18 and CK34BE12. No differences could be found when comparing the IHC profile of the case presenting with metastasis with the remaining. Two patients died during follow-up: the one that was metastatic at diagnosis died due to disease progression two months after diagnosis and another died due to a competitive disease (acute lower limb ischemia).

**Conclusions:** MTSCC is a rare variant of RCC that despite being initially regarded as an indolent disease with a good prognosis might harbor an aggressive behavior and grim prognosis. IHC markers are not able to predict tumor clinical aggressivity.

### CT 31

#### **VALOR PROGNÓSTICO DE LOCAL DE INVASÃO NO CARCINOMA DE CÉLULAS RENAIIS, ESTADIO T3ANOMO. AVALIAÇÃO PROGNÓSTICA A LONGO PRAZO POR SUBTIPO.**

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**Introdução:** A 7ª revisão da American Joint Committee on Cancer (AJCC) no estadiamento do carcinoma de células renais (CCR) agrupou no estadio T3a doentes com invasão da veia renal e seus vasos seg-

mentares (IV), com os doentes que apresentavam invasão da gordura perirenal (IGP) e doentes com invasão da gordura do seio renal (IGS), sem invasão da fáscoa de Gerota. Vários estudos alertam para a heterogeneidade deste estadió, com diferenças prognósticas entre os vários padrões de invasão.

**Objetivos:** Avaliação das diferenças prognósticas da presença de IV, IGP e IGS nos doentes com CCR submetidos a nefrectomia num centro hospitalar terciário.

**Material e métodos:** Foi realizada uma análise retrospectiva dos doentes submetidos a nefrectomia, radical ou parcial, entre 2006 e 2012 na instituição, totalizando 365 casos. As análises anatomopatológicas foram reclassificadas de acordo com a 7ª edição da AJCC. Foram incluídos um total de 48 casos com estadió T3a N0 M0. Foi feita uma análise de sobrevivência com regressão de cox para ajuste de diferentes variáveis. Foram recolhidas variáveis clínicas e anatomopatológicas dos doentes, tais como idade, sexo, tipo de cirurgia (radical vs. parcial) subtipo histológico do tumor, grau nuclear, presença de necrose, invasão linfovascular e subtipo sarcomatoide.

**Resultados:** O follow-up médio dos 48 casos incluídos foi de 98 meses. Os doentes apresentavam uma idade média de 62.1 anos, eram maioritariamente homens (37) e apresentavam maioritariamente subtipo histológico de células claras (33). Um total de 40 doentes apresentavam invasão da gordura, 22 dos quais apenas perirenal, 13 apenas no seio renal e 5 em ambas as localizações. 13 doentes apresentaram invasão venosa, 8 destes com invasão concomitante da gordura. Na análise de sobrevivência global univariada verificamos que doentes com idade mais elevada, grau de ISUP/Furhman mais elevados, a presença de necrose tumoral, invasão linfovascular bem como diferenciação sarcomatoide apresentavam um pior prognóstico. Na análise

univariada os doentes com IV apresentavam uma pior sobrevivência global (HR 2.219,  $p=0.125$ ) apesar de não estatisticamente significativa. Já numa análise multivariada a presença de IV revelou-se como um fator prognóstico independente (HR 13.185,  $p=0.033$ ) quando ajustado a restantes variáveis clinicamente significativas previamente referidas.

**Discussão/Conclusões:** Nesta análise retrospectiva, podemos observar que dentro do estadió pT3a a presença de invasão venosa pode ser um fator prognóstico independente na sobrevivência global dos doentes. Isto pode permitir identificar doentes com estadió T3aN0M0 com pior prognóstico que poderão beneficiar de terapêuticas adjuvantes mais intensivas

## CT 32

### SERÃO OS TRATAMENTOS DISPONÍVEIS PARA A DISFUNÇÃO ERÉTIL CAPAZES DE SATISFAZER AS NECESSIDADES DA POPULAÇÃO? - EXPERIÊNCIA DE UM HOSPITAL CENTRAL

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**Introdução:** Estima-se que a disfunção erétil (DE) afete cerca de 48,1% dos homens em Portugal com prevalências a variar de acordo com a faixa etária. Sendo uma população tão ampla, complexa e heterogénea, torna-se imperativo compreender a eficácia do tratamento desta patologia em todos os subgrupos desta população e perceber se há alguma condição médica e fatores de risco cardiovasculares (FRCV) que torne a DE refratária aos tratamentos disponíveis atualmente em Portugal.

**Objetivo:** Avaliar a eficácia terapêutica da DE numa população de homens referenciados à consulta de Andrologia num Hos-

pital Central.

**Material e métodos:** Estudo transversal que incluiu todos os pacientes encaminhados ao departamento de andrologia de um Hospital Central para avaliação e tratamento da Disfunção Erétil ao longo de um período de três anos, de dezembro de 2019 a dezembro de 2022. Recolheram-se dados demográficos, histórico médico e fatores de risco para doenças cardiovasculares (Hipertensão arterial, Dislipidemia, Tabagismo, Alcoolismo, Hiperuricemia, Diabetes Mellitus, Insuficiência Cardíaca, HIV, Doença Renal Crónica, Doença Hepática, Doença Arterial Periférica, Enfarte Agudo do Miocárdio prévio, Acidente Vascular Cerebral prévio e distúrbios hormonais) e prescrições registadas no processo hospitalar. As análises estatísticas foram realizadas usando o software SPSS ver. 25.0 (IBM, Armonk, NY, EUA).

**Resultados:** Foram incluídos 138 pacientes com disfunção erétil, com uma média de idade de  $57.1 \pm 0.9$  anos. A média do Índice de Massa Corporal foi de  $27.8 \pm 0.4$  e cada paciente tinha uma média de 3 FRCV. Os FRCV mais prevalentes foram a Hipertensão Arterial (62,5%), Dislipidemia (59,6%) e o Tabagismo (mais de 10 UMA) (48,5%) respetivamente. Independentemente dos FRCV e das características da população, 79,2% dos pacientes obtiveram relações sexuais satisfatórias apenas com tratamento oral. Quando analisada individualmente a população com cada FRCV, concluiu-se que não houve diferenças estatisticamente significativas entre a eficácia do tratamento oral entre os diferentes subgrupos populacionais ( $p=ns$ ). De todos os tratamentos usados, oral e não oral, o mais eficaz para atingir relações sexuais satisfatórias foi a prótese peniana com 100% de eficácia ( $n=2$ ), seguindo-se a terapêutica oral com inibidores de fosfodiesterase-5 (67,0%).

**Conclusão:** O tratamento da disfunção erétil é eficaz, independentemente dos

fatores de risco da população. Contudo, neste estudo não foram avaliadas as doses prescritas pelos médicos urologistas, pelo que não podemos descartar a provável necessidade de doses mais altas de fármacos para doentes com mais fatores de risco. Por outro lado, com um tempo de follow-up diminuído, este estudo não é capaz de demonstrar a taxa de abandono terapêutico, seja por perda de eficácia terapêutica ou medo de reações adversas medicamentosas.

### CT 33

#### SERÁ O R.E.N.A.L NEPHROMETRY SCORE CAPAZ DE PREVER COMPLICAÇÕES DE NEFRECTOMIAS PARCIAIS? – A EXPERIÊNCIA DE UM HOSPITAL CENTRAL

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**Introdução:** O R.E.N.A.L Nephrometry Score foi introduzido em 2009 por Kutikov et al para caracterizar imagiologicamente massas renais e avaliar a sua complexidade anatómica. Ao longo dos anos, tem sido usado para planear intervenções cirúrgicas e prever a dificuldade cirúrgica da resseção de massas renais. No entanto, os cirurgiões mais experientes têm questionado a sua utilidade enquanto preditor de complicações e a sua utilidade no planeamento cirúrgico.

**Objetivo:** Avaliar a capacidade de prever complicações cirúrgicas de nefrectomias parciais de cirurgiões experientes num Hospital Central de Portugal

**Material e métodos:** Foram selecionadas todas as nefrectomias parciais realizadas num Hospital Central entre janeiro de 2020 e dezembro de 2022. Selecionaram-se as cirurgias realizadas pelos 4 cirurgiões mais experientes do serviço. Excluíram-se os



casos com ausência de tomografia computadorizada ou ressonância magnética pré-cirúrgica disponível no processo eletrônico hospitalar. Foram também excluídos todos os casos de tumores multifocais e anatomia renal distorcida seja por cirurgia renal prévia ou variantes anatômicas. O *R.E.N.A.L Nephrometry Score* foi calculado para cada caso elegível, de acordo com as indicações descritas no artigo original por *Kutikov et al.* Foram analisadas as técnicas cirúrgicas, complicações cirúrgicas e anatomia patológica das massas. As análises estatísticas foram realizadas usando o software SPSS ver. 25.0 (IBM, Armonk, NY, EUA).

**Resultados:** Foram realizadas 169 nefrectomias parciais durante o período em estudo, das quais satisfiziam 49 nefrectomias parciais satisfiziam os critérios. Para estas foi calculado o seu *R.E.N.A.L Nephrometry Score*. Destas, 47 foram feitas via laparoscópica, com um tempo de isquemia médio de 18,8 minutos e em 14,3% das quais com tempo de isquemia de 0 minutos. Em 18,4% destas houve referência a uma complicação intra ou pós-operatória, das quais a mais frequente foi a fistula urinária (n=3). Não há diferença estatisticamente significativa entre o total do *score* e as complicações cirúrgicas, hemorragia ou probabilidade de margens positivas ( $p>0,05$ ), mas existe uma relação entre o tempo de isquemia e o *score* atribuído à massa ( $p<0,05$ ). Existe uma relação estatisticamente significativa entre a pontuação dada ao critério “*Nearness*” e “*Location relative to the polar lines*” e a probabilidade de abertura do excretor ( $p<0,05$ )

**Conclusão:** O *R.E.N.A.L Nephrometry Score* não demonstrou ser um preditor de complicações cirúrgicas em nefrectomias parciais. No entanto, mostrou significância na previsão da probabilidade de abertura do excretor e tempo de isquemia. Com o objetivo de um planeamento cirúrgico preciso, optimizacao de resultados e mi-

nimização de complicações, considera-se necessário a utilização de *scores* que incorporem características individuais do paciente, como a espessura da gordura perirrenal, antecedentes cirúrgicos e a anatomia vascular renal.

### CT 34

#### SELEÇÃO DO DOENTE INDICADO PARA RTU-TV EM REGIME AMBULATÓRIO

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**Introdução:** A resseção transuretral de tumor vesical (RTU-TV) é o *gold-standard* no tratamento da neoplasia da bexiga, sendo uma das cirurgias mais frequentemente realizadas na Urologia. A realização deste procedimento em unidade de cirurgia ambulatória apresenta várias vantagens nomeadamente na diminuição da lista de espera e na redução de vagas necessárias nas enfermarias de Urologia o que leva a uma redução dos custos e das taxas de infeção associadas ao internamento.

**Objetivos:** O principal objetivo deste trabalho é averiguar as características do doente ideal para ser submetido a RTU-TV ambulatória através da determinação dos fatores preditores de alta nas primeiras 24 horas pós-operatórias. Como objetivo secundário descrevemos as características da população submetida a RTU-TV bem como as complicações associadas à cirurgia.

**Materiais/Métodos:** Elaborámos um estudo descritivo retrospectivo no qual avaliámos os doentes submetidos a RTU-TV no nosso centro hospitalar entre janeiro de 2020 e dezembro de 2022. No total foram incluídos 418 doentes submetidos a RTU-TV divididos em dois grupos (<24h e >24h de internamento). Os critérios de exclusão que adotámos foram a realização da cirur-

gia em contexto de urgência e a realização de outros procedimentos cirúrgicos no mesmo tempo operatório.

**Resultados:** A amostra é composta por um total de 418 RTU-TV que foram eletivamente realizadas em regime de internamento. Quanto aos dados demográficos, 309 (73,9%) eram homens e 109 (26,1%) eram mulheres. Dos doentes analisados, 88 (21,1%) tomavam medicação antiagregante e 58 (13,9%) tomavam anticoagulantes. Quanto à avaliação da “*American Society of Anesthesiologists*” (ASA) pré-operatória, 242 (57,9%) eram ASA $\leq$ 2 e 176 eram ASA $\geq$ 3 (42,1%). Dividimos a amostra em 2 grupos, o grupo dos doentes que tiveram alta no primeiro dia pós-operatório (PO1) (n=266, 63,6%) e o grupo com internamento mais prolongado (PO $\geq$ 2) (n=152, 36,4%). A média global de tempo de internamento foi de 1,8 dias (desvio padrão = 1,544). A análise revelou uma relação estatisticamente significativa do sexo feminino (p=0.045), ser não fumador (p=0.004), avaliação pré-operatória ASA $\leq$ 2 (p<0.001), ressecção completa da lesão (p<0.001), dimensão da lesão <3cm (p<0.001), ausência de perfuração vesical intraoperatória (p=0.014) e administração de mitomicina-C (MMC) pós-operatória (p<0.001) com ter alta no primeiro dia pós-operatório. Tal não se verificou com a toma de antiagregantes (p=0.724), toma de anticoagulantes (p=0.440) ou tipo de energia utilizada (monopolar versus bipolar) (p=0.370). Construímos um modelo preditivo de alta com 5 variáveis independentes (hábitos tabágicos, extensão da ressecção, perfuração vesical, lesão maior ou menor que 3cm e ASA) que consegue prever corretamente o tempo de internamento (PO1 ou PO $\geq$ 2) em 72% dos casos. O fator preditor mais forte de PO $\geq$ 2 é a ocorrência intraoperatória de perfuração vesical (OR=4.913, 95% CI [1.380 -17.486]), seguido da avaliação ASA $\geq$ 3 (OR= 2.196, 95% CI [1,411 – 3,419]), lesão>3cm (OR= 1.948, 95% CI

[1,110 – 3,416]) e ter hábitos tabágicos (OR= 1.775, 95% CI [1,127 – 2,798]). Por outro lado, a ressecção completa da lesão (OR= 0,262 95% CI [0,134 – 0,513]) aumenta a probabilidade de alta no PO1. Relativamente a complicações, ocorreram 13 (3,1%) perfurações vesicais extra-peritoneais intraoperatórias e foram realizadas 9 (2,15%) revisões cirúrgicas, todas motivadas por hematória e realizadas por abordagem endoscópica, entre o dia da cirurgia e o 6º dia pós-operatório (média=1,8 dias). Nos primeiros 30 dias após a RTU-TV, 60 (14,3%) doentes recorreram ao serviço de urgência, sendo o motivo mais comum a hematória (n=24, 5,7%) seguida de complicações infecciosas (n=21, 5%).

**Conclusões:** O doente indicado para RTU-TV ambulatória, isto é, com maior probabilidade de ter alta no primeiro dia pós-operatório é o doente do sexo feminino, não fumador, ASA $\leq$ 2 e com uma lesão vesical  $\leq$ 3cm. Apesar de não ser possível de prever no período pré-operatório, podemos concluir que uma ressecção completa da lesão sem perfuração vesical apresenta um forte poder preditivo de alta ao primeiro dia pós-operatório. Aferimos também que a administração intravesical de MMC nas primeiras 24 horas pós-operatórias pode ser realizada na UCA uma vez que não compromete a alta no primeiro dia.

### CT 35

#### ZINNER'S SYNDROME PRESENTING WITH BLADDER AND RECTAL OBSTRUCTION IN THE EMERGENCY ROOM: A CASE REPORT

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**Introduction:** Congenital anomalies of the kidney and urinary tract (CAKUT) are generally diagnosed in prenatal ultrasound screening or postnatal evaluation of infants. CAKUT diagnosis is relevant to

minimize its causative role in chronic kidney disease (CKD) and to alert for isolated or syndromic abnormalities of other organ systems, such as genital. Zinner's syndrome (ZS), first described in 1914 and roughly 200 cases being reported in literature, results from an embryologic maldevelopment of the caudal portion of the mesonephric (Wolffian) duct combined with associated absence of the ureteric bud. This anomaly results in unilateral renal agenesis and atresia of the ejaculator duct. However, gonads continue to develop, and insufficient drainage causes congenital cystic dilatations of the seminal vesicle. These cysts tend to be small and asymptomatic until puberty, but size growth during utmost sexual reproductive activity period frequently originates irritative or inflammatory urogenital complains. Cysts with bigger dimensions can even result in bladder or rectal obstruction.

**Case report:** We present a case of a 48-year-old male patient admitted at our medico-surgical emergency room (ER) with acute urinary retention (AUR) and acute rectal blood losses. Past medical history was relevant only for left renal agenesis, without family history of urogenital abnormalities. When questioned patient denied similar episodes, trauma or hematuria but complained about long-term manually reducible hemorrhoids and low ejaculatory volume. He had no offspring and denied episodes of hematospermia or painful ejaculation. On physical exam, he presented hemodynamically stable, with hypogastric tenderness, perineal and perianal discomfort. On rectal exam was objectified ingurgitated hemorrhagic hemorrhoids without thrombus and a slightly painful rectal ampulla with anterior bulging. Laboratory evaluation revealed anemia (Hemoglobin 8,5) and no acute kidney injury (AKI). An abdominopelvic computerized tomography imaging (see images) was performed. It confirmed vicariant right kid-

ney and left kidney fossa emptiness. It also revealed an atresic and dilated left ureter (3 cm of maximum diameter), with proximal end localized at L4-L5 vertebra level and distal implantation on a large multiloculated cystic seminal vesicle (12 x 10 x 8 cm of dimension). Patient was catheterized and admitted to Surgery department for hemorrhagic control and surveillance and for further endoscopic exams. Patient waits for Urology consultation in our department for complete urogenital work-up and medico-surgical planning.

**Discussion/Conclusions:** Mutual embryological origin of kidney and ejaculatory duct from mesonephric (Wolffian) duct explains ZS classic triad of unilateral renal agenesis, ejaculatory duct obstruction and ipsilateral seminal vesicle cysts, which are uncommon. Although rare, ZS should be investigated in a man with unilateral renal agenesis presenting lower urinary tract symptoms (LUTS). Another important association to be considered is infertility especially due to ejaculatory duct obstruction.

## CT 36

### IMPACTO NA FUNÇÃO SEXUAL DA ENUCLEAÇÃO DA PRÓSTATA COM LASER HOLMIUM (HOLEP) VERSUS ADENOMECTOMIA PRÓSTÁTICA ABERTA: ESTUDO PROSPETIVO 6 MESES

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**Introdução:** A enucleação da próstata com laser holmium (HoLEP) e a adenomectomia prostática aberta são considerados tratamento standart para sintomas urinários do trato urinário inferior masculino na presença de obstrução prostática e volume prostático superior a 80 ml. Muitos estudos têm avaliado a função sexual após o tratamento cirúrgico de sintomas urinários do trato urinário inferior masculino na presença de obstrução prostática, no entanto, os dados são escassos em estudos comparativos entre duas técnicas standart para volumes prostáticos superiores a 80 ml

**Objetivos:** O objetivo deste estudo prospectivo foi de comparar as alterações na função sexual após a realizado de HoLEP versus adenomectomia prostática aberta usando o Índice Internacional da Função Erétil – “International Index of Erectile Function-15 (IIEF-15) questionnaire”.

**Material e métodos:** Um estudo prospectivo foi realizado durante 6 meses, de novembro 2022 a agosto de 2023. Todos os pacientes com sintomas urinários do trato urinário inferior masculino na presença de obstrução prostática e volume prostático superior a 80 ml, que foram admitidos no nosso centro hospitalar para intervenção cirúrgica, foram inscritos no estudo e foram submetidos ou a HoLEP ou adenomectomia prostática aberta.

O acompanhamento das alterações na função sexual (pontuação IIEF-15) foi reali-

zado em 1 e 3 meses, e os dados de ambos os grupos foram analisados com métodos estatísticos apropriados. Os testes estatísticos foram realizados com o sistema Statistical Package for the Social Science (SPSS).

**Resultados:** Um total de 70 pacientes foram admitidos no estudo. Desses 70 pacientes, 27 foram submetidos a HoLEP e 43 foram submetidos a adenomectomia prostática aberta.

A idade média dos pacientes do grupo HoLEP foi de 71.53 (faixa 57-84 anos) e o do grupo adenomectomia prostática aberta foi de 69.65 (faixa 57-85 anos). A linha de base do score de LUTS de acordo com o IPSS foi comparável entre os dois grupos ( $P = 0.619$ ). O valor do tamanho prostático médio foi significativamente maior no grupo da adenomectomia prostática aberta ( $107 \pm 20.10g$ ) comparado com o grupo Holep ( $86 \pm 4.71g$ ). A pontuação média da função erétil (FE) permaneceu significativamente baixa em ambos os grupos aos 3 meses, sem diferença estatisticamente significativa entre os dois grupos.

**Discussão/Conclusões:** A disfunção sexual é altamente prevalente não só em pacientes com obstrução prostática benigna como em pacientes que são submetidos a cirurgia por esta condição. Neste estudo tentou-se comparar as alterações na função sexual ente duas técnicas standart no tratamento da obstrução prostática com volume prostático superior a 80 ml. Neste estudo 75.60% dos pacientes tinha mais de 60 anos de idade e a idade média no grupo HoLEP e da adenomectomia prostática aberta foi 71.53 anos e 69.65 anos respetivamente. LUTS devido a obstrução prostática benigna em pacientes idosos são comumente acompanhados por disfunção sexual. A severidade dos sintomas urinários parece exercer a maior influência no grau de disfunção sexual. O valor do tamanho médio foi de  $86 \pm 4.71g$  no grupo HoLEP e de  $107 \pm 20.10g$  no grupo da

adenomectomia prostática aberta. A linha de base do score de LUTS de acordo com o IPSS foi comparável entre os dois grupos ( $P = 0.619$ ). Uma das limitações deste estudo foi não se conseguir equiparar o tamanho prostático e, por conseguinte, avaliar significância estatística entre o tamanho prostático e a severidade dos sintomas. A disfunção erétil é a incapacidade persistente de atingir e manter uma ereção suficiente para um desempenho sexual satisfatório. Em ambos os grupos a média da FE desceu significativamente no primeiro mês pós-operatório. Observou-se que a pontuação média da FE permaneceu significativamente baixa em ambos os grupos, mesmo aos 3 meses, sem diferença significativa entre os dois grupos. Observámos que a pontuação total do IIEF-15 foi comparável no início e no período de acompanhamento entre os dois grupos ( $P > 0,05$ ). A pontuação total do IIEF-15 diminuiu inicialmente no período de 1 mês, depois melhorou discretamente aos 3 de pós-operatório. Aos 3 meses, a pontuação total foi significativamente menor em ambos os grupos em comparação com o valor basal, mas a pontuação foi comparável entre os grupos. Uma das principais limitações deste estudo é o curto tempo de seguimento dos pacientes. Concluindo, ao se comparar as alterações na função sexual entre HoLEP e a adenomectomia prostática aberta no fim deste estudo (3 meses), não se observou diferenças entre os dois grupos em relação à FE de acordo com o cálculo pelo IIEF-15 score.

### CT 37

#### IMPACT OF PREOPERATIVE RENAL BIOPSY ON SURGICAL MANAGEMENT IN KIDNEY CANCER: A SINGLE-CENTER STUDY

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**Introduction:** Renal cell carcinoma (RCC) poses a significant challenge in clinical decision-making, often necessitating surgical intervention. The role of preoperative renal biopsy in shaping management strategies for kidney cancer remains a topic of interest. This study, conducted at our institution between 2018 and 2022, examines the influence of renal biopsy results on surgical management decisions in patients with kidney cancer.

**Methods:** We conducted a retrospective analysis of patients with suspected kidney cancer who underwent preoperative renal biopsy at our institution between 2018 and 2022. Clinicopathological data, including patient demographics, imaging findings, biopsy results, surgical approaches, and postoperative outcomes, were collected and analyzed.

**Results:** A total of 38 preoperative renal biopsies were performed on patients with suspected kidney cancer. The median age was 71 years (range: 20 to 89 years), with 22 males and 16 females. Most biopsies were guided by computed tomography (CT). Post-biopsy complications, classified using the Clavien-Dindo system, revealed three patients with Grade 2 complications. Among the 38 patients, 31 underwent biopsy due to suspected primary renal tumors. Results included: 4 cases without neoplasia, 4 with inconclusive or insufficient diagnostic material, 3 oncocytomas, 1 angiomyolipoma, 17 clear cell renal carcinomas, 1 Ewing sarcoma, and 1 suspected primary renal tumor. Notably,

one patient from the group without neoplasia underwent radical nephrectomy, with pathology confirming oncocytoma. Within the inconclusive group, one patient underwent partial nephrectomy (pathology: clear cell renal cell carcinoma), and another received cryotherapy. The patient with suspected primary renal tumor underwent radical nephrectomy, with pathology revealing papillary type 1 renal cell carcinoma. Of the 17 patients diagnosed with renal cell carcinoma, 10 had clear cell subtype, 5 had papillary subtype, 1 had chromophobe subtype, and 1 had sarcomatoid features. Eight of these patients presented with metastases at diagnosis. Treatment strategies included: 3 radical nephrectomies, 3 partial nephrectomies, 3 cryotherapies, 5 angiogenesis inhibitors, and 3 palliative care referrals. Lastly, seven patients underwent renal biopsy due to suspected metastasis from other organs. Results showed 1 case without neoplasia, 3 with diffuse large B-cell lymphoma, 1 with low-grade marginal zone B-cell lymphoma, and 2 with metastatic pulmonary adenocarcinoma. These patients received continued oncological care and follow-up.

**Discussion and Conclusion:** The findings of this single-center study provide valuable insights into the role of preoperative renal biopsy in guiding surgical management decisions for kidney cancer patients. Renal biopsy not only aids in accurate diagnosis but also significantly influences the selection of tailored treatment strategies, ultimately improving patient outcomes. Our research underscores the necessity of a collaborative, multidisciplinary approach involving urologists, radiologists, and pathologists to optimize patient care in the context of kidney cancer. Additionally, this study highlights the evolving landscape of kidney cancer management, where personalized treatment approaches are becoming increasingly important. Preoperative renal biopsy empowers clinicians

to make informed decisions, especially in cases of diagnostic ambiguity. As the field of oncology continues to advance, the integration of renal biopsy data into the decision-making process is expected to become even more critical for achieving better therapeutic outcomes and minimizing treatment-related morbidity. In conclusion, our study not only demonstrates the pivotal role of preoperative renal biopsy in surgical management but also emphasizes the need for ongoing research and refinement of protocols to enhance the precision and clinical utility of this diagnostic tool. As we continue to explore the potential of renal biopsy in improving kidney cancer care, we remain committed to delivering the highest standard of individualized treatment to our patients.

### CT 38

#### **ARTIFICIAL URINARY SPHINCTER IMPLANTATION: RESULTS IN A COHORT OF PATIENTS WITH MORE THAN 10 YEARS FOLLOW-UP**

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**INTRODUCTION:** Implantation of an artificial urinary sphincter is the main treatment method in patients with intrinsic sphincteric deficiency. There are a small number of studies devoted to the study of the effectiveness, safety and impact on the quality of life of AUS implantation with a follow-up period of more than 10 years.

**PURPOSE:** Evaluation of AUS implantation results in terms of safety, efficacy and impact on quality of life in a group of patients with a follow-up period of more than 10 years.

**MATERIALS AND METHODS:** From 2004 to 2023, AUS was implanted in 62 patients with severe stress urinary incontinence, of whom 14 had a follow-up period of more than 10 years. Urine loss is estimated using bladder diary. The use of  $\leq 1$  pad per day

(“social continence”) was considered as cure. The quality of life was assessed using the IPSS QoL scale and the ICIQ-UI SF questionnaire. Complications are described according to the Clavien-Dindo classification.

**RESULTS:** The median age of the patient at the time of implantation was 66 years (IQR 63-68 years). The causes of severe stress urinary incontinence were the following interventions: radical prostatectomy - 11 patients, radical cystectomy – 2 patients, transurethral resection of the prostate - 1 patient. The median time after the intervention that caused urinary incontinence was 20 months (IQR 15-26 months). The effectiveness of implantation was evaluated in 11 patients, 3 patients had complications preventing the use of AUS. Median follow-up was 137 months (IQR 124-160 months). There was a statistically significant decrease in the median urine loss from 700 ml (IQR 600-800 ml) to 12.5 ml (IQR 1-60 ml),  $p < 0.05$ . There was also a statistically significant reduction in the use of pads per day from 7 (IQR 7-8) to 1 (IQR 0-2),  $p < 0.05$ . Five patients did not use pads. Seven patients met the criterion of cure. Median IPSS QoL scores decreased from 4 (IQR 4-5) to 2 (IQR 1-2),  $p < 0.05$ . After treatment, the score of the ICIQ-UI SF questionnaire was 8 (6-10). Complications of more than II according to the Clavien-Dindo classification were noted in 8 out of 14 patients. Eight patients underwent 15 revisions, 6 of them repeated. The AUS was partially or completely removed in 6 patients.

**DISCUSSION/CONCLUSIONS:** With a follow-up period of more than 10 years, a significant number of patients developed complications, including those requiring removal or replacement of the artificial urinary sphincter or its components, and therefore patients with an artificial urinary sphincter require regular long-term follow-up. Despite a significant proportion of patients who required an AUS revision,

implantation leads to a statistically significant reduction in urine loss and an improvement in the quality of life.

### CT 39

#### **PREDICTORS OF PROSTATE CANCER DETECTION IN MRI PIRADS 3 LESIONS – REALITY FROM THE TERTIARY CENTER**

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**Introduction:** The Prostate Imaging Reporting and Data System (PI-RADS) score reports the likelihood of a clinically significant prostate cancer (CsPCa) based on various multiparametric prostate magnetic resonance imaging (mpMRI) characteristics. The PI-RADS category 3 is an intermediate status, with an equivocal risk of malignancy. A metanalysis with 17 studies reported a cancer detection rate of 16% (7-27%) in patients with PI-RADS category 3 lesions.

The PSA density (PSAD) has been proposed as a tool to facilitate biopsy decisions on PI-RADS category 3 lesions. A recent study on biopsy naive patients with PI-RADS 3 lesions and low PSAD ( $< 0.10$  ng/ml/ml) reported a low risk of significant disease (4%) suggesting that biopsies could be avoided.

**Objectives:** The aim of this study is to determine the frequency of CsPCa, assess the diagnostic value of targeted biopsy and identify clinical predictors to improve the CsPCa detection rate in PI-RADS category 3 lesions.

**Methods:** Between 1 st January 2017 and 31 st December 2022, a total of 1661 men underwent prostate biopsy in our institution. The inclusion criteria were: mpMRI with a PI-RADS 3 lesion followed by prostate biopsy. Clinical and mpMRI data of men with PI-RADS 3 lesions were retrospectively reviewed. The study population was allocated into two groups to assess

the diagnostic value of targeted biopsy: target group, including those submitted systematic plus targeted biopsy versus non-target group when systematic or saturation biopsy were only performed. Patients with PI-RADS 3 lesions were divided into three categories on basis of pathological biopsy results: benign, clinically insignificant disease (score Gleason = 6 or ISUP 1) and clinically significant cancer (score Gleason  $\geq$  7 (3+4) or ISUP  $\geq$  2) according to target and non-target group. Univariate and multivariate analyses were performed to identify clinical predictors of CsPCa.

**Results:** A total of 130 men with 156 PI-RADS 3 index lesions were included. Most of PIRADS 3 lesions were benign (n=77, 59.2%), 19 (14.6%) were clinically insignificant prostate cancer and 34 (26.2%) were CsPCa. CsPCa detection was higher in the non-target group (32.6% to 23.0%, respectively). If a standard systematic biopsy was omitted and only performed a target biopsy, a CsPCa diagnosis was missed in 9 patients. The differences of insignificant cancer and CsPCa rates among the target or non-target group was not statistically significant ( $p=0.50$  and  $p=0.24$ , respectively). On multivariate analysis, the abnormal digital rectal examination (DRE) and the lesion location were significant associated a presence of CsPCa in PI-RADS 3 lesions (OR = 3.61, 95% CI [1.22,10.72],  $p=0.02$  and OR =3.31, 95% CI [1.35,8.11],  $p=0.01$ , respectively). A higher median PSAD significantly predisposed for CsPCa on univariate analyses ( $p=0.05$ ) but was not significant in the multivariate analysis ( $p=0.76$ ). In our population, using 0.10 ng/ml/ml as a cut-off to perform biopsy, 41 patients would have avoided biopsy (31.5%), but 5 cases of CsPCa would not had been detected (3.4%). We could not identify statistical significance between others clinical and imagiological variables and CsPCa de-

tection.

**Conclusion:** We have demonstrated in our cohort that prostate lesions characterized as PI- RADS 3 lesions, according to the current prevalent scoring systems, were associated with a low likelihood of the CsPCa detection. A systematic biopsy associated or not with target biopsy is essential in PI-RADS 3 lesions, and targeted biopsy did not demonstrate to be superior in the detection of CsPCa. The presence of abnormal DRE and lesions localized in peripheral zone potentially predict the presence of CsPCa in biopsied PI-RADS 3 lesions.

#### CT 40

#### PERIOPERATIVE OUTCOMES COMPARISON BETWEEN RETROPERITONEAL VERSUS TRANSPERITONEAL LAPAROSCOPIC RADICAL NEPHRECTOMY IN A DOUBLE-CENTER SETTING

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**Introduction/Objectives:** Retroperitoneal and transperitoneal approaches for laparoscopic partial nephrectomy have been discussed. However, there is less information regarding laparoscopic radical nephrectomy. So, we aim to compare the perioperative outcomes of laparoscopic retroperitoneal radical nephrectomy (RPRN) and laparoscopic transperitoneal radical nephrectomy (TPRN) in two experienced centers.

**Materials/Methods:** We conducted a retrospective observational double-center study including patients who underwent RPRN and TPRN. Statistical analysis was done using IBM®SPSS®, version 28.0.

**Results:** A total of 58 patients, 37 (63.8%) that underwent TPRN and 21 (36.2%) that performed RPRN were compared. There



were no statistical differences between gender ( $p=0.268$ ), median age at surgery ( $p=0.160$ ), and Charlson comorbidity index (CCI) ( $p=0.591$ ). No differences were found regarding tumor location. In 36.1% ( $n=23$ ) of TPRN vs 42.9% ( $n=9$ ) in RPRN, an anterior tumor location was found, and in 63.9% ( $n=23$ ) vs 57.1% ( $n=12$ ), a posterior lesion was found ( $p=0.614$ ). Furthermore, in TPPN 18.9% ( $n=7$ ) of tumors were in the lower third, 35.1% ( $n=13$ ) in the middle, and 45.9% ( $n=17$ ) in the upper third compared with 9.5% ( $n=2$ ), 52.4% ( $n=11$ ) and 38.1% ( $n=8$ ), respectively, in RPRN ( $p=0.408$ ). Otherwise, the RENAL score revealed significant differences ( $p=0.029$ ), suggesting higher complexity for RPRN. This score was distributed as low (TPRN 16.2%  $n=6$  vs RPRN 9.5%  $n=5$ ), moderate (TPRN 54.1%,  $n=20$  vs RPRN 23.8%  $n=5$ ), and high complexity (TPRN 29.7%,  $n=11$  vs RPRN 66.7%  $n=14$ ). There were no significant differences in the prevalence of final T-stage histology between groups (TPRN 39.4%  $n=13$  in stage T3/T4 vs RPRN 31.6%  $n=6$  in stage T3/T4,  $p=0.791$ ). No significant differences were observed in conversion to open surgery ( $p=0.362$ ), intraoperative ( $p=0.127$ ), or postoperative complications (13.5% in TPPN vs 14.3% in RPPN,  $p>0.990$ ). On the other hand, operative time (121.0 vs 165.0min  $p=0.004$ ) and hospital stay (3.0 vs 5.0 days  $p=0.046$ ) were significantly shorter in TPRN. After adjusting to gender, CCI, and stage T, increased operative time ( $\beta=42.46$ ,  $p<0.001$ ) and increased hospital stay ( $\beta=1.40$ ,  $p=0.010$ ) maintained its statistical significance association with RPRN. Stage T of T3/T4 when compared to T1/T2 was also associated with increased operative time ( $\beta=38.11$ ,  $p<0.001$ ), and CCI  $> 6$  when compared to 0-3 was also associated with increased length of hospital stay ( $\beta=1.73$ ,  $p=0.028$ ). Finally, the prevalence of positive surgical margins was also not significantly different (11.1%,  $n=4$  for TPPN and 4.8%,  $n=1$  for RPPN,  $p=0.642$ ).

**Conclusions:** Radical nephrectomy is feasible either through transperitoneal or retroperitoneal approach with similar intraoperative and postoperative complications as well as oncological outcomes. Only the operative time and hospital stay seem to be shorter in TPRN.

## CT 41

### RETROPERITONEAL VERSUS TRANSPERITONEAL LAPAROSCOPIC RADICAL NEPHROURETERECTOMY: A DOUBLE-CENTER PERIOPERATIVE OUTCOMES COMPARISON

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**Introduction/Objectives:** Radical nephroureterectomy remains the gold standard for the surgical treatment of upper urinary tract urothelial carcinoma (UTUC). So, we aim to compare the perioperative outcomes of laparoscopic retroperitoneal radical nephroureterectomy (RPRNU) with laparoscopic transperitoneal radical nephroureterectomy (TPRNU) in two experienced centers.

**Materials/Methods:** We conducted a retrospective observational double-center study including patients who underwent RPNU and TPRNU. Statistical analysis was done using IBM®SPSS®, version 28.0.

**Results:** A total of 25 patients, 14 (56.0%) that performed TPRNU and 11 (44.0%) that performed RPRNU were compared. The distal ureter and the bladder cuff were managed with an endoscopic approach in 27.3% of patients submitted to a RPRNU vs 28.6% in TPRNU; with an open approach in 72.7% of patients who did RPRNU vs 57.1% in TPRNU; and with a pure laparoscopic technique in 14.3% of patients with TPRNU. There were no statistical differences

es between gender ( $p>0.990$ ), the median age at surgery ( $p=0.422$ ), and Charlson comorbidity index (CCI) ( $p=0.320$ ). Regarding tumor characteristics, there were no differences in either tumor location which was mostly in the kidney (TPRNU 71.4%  $n=10$  vs RPRNU 72.7%  $n=8$ ,  $p>0.990$ ), in median tumor size (TPRNU 30.0 vs RPRNU 38.0,  $p>0.990$ ), in tumor grade which was mostly high grade (TPRNU 71.4%,  $n=10$  vs RPRNU 81.8%,  $n=9$ ,  $p=0.316$ ) or in T2-T4 stage prevalence between groups (50.0%  $n=7$  and 40.0%  $n=4$  for TPRNU and RPRNU, respectively  $p=0.697$ ). 57.1% of TPRNU didn't undergo lymphadenectomy compared with 45.5% of RPRNU patients. In patients who were submitted to lymphadenectomy, 21.4% ( $n=3$ ) in TPRNU and 36.4% ( $n=4$ ) in RPRNU were NO ( $p=0.946$ ). The mean lymph nodes removed per procedure was 2.2 in TPRNU and 2.0 in RPRNU. With respect to the perioperative outcomes, there were no differences in the prevalence of conversion to open surgery (TPRNU 7.1%  $n=1$  vs RPRNU 18.2%  $n=2$ ,  $p=0.565$ ), intraoperative (TPRNU 21.4%  $n=3$  vs RPRNU 18.2%  $n=2$ ,  $p>0.990$ ) or postoperative complications (TPRNU 14.3%  $n=2$  vs RPRNU 36.4%  $n=4$ ,  $p=0.350$ ). Medians for operative time (min) and length of hospital stay (days) were 191.5 (Q1=175.0, Q3=255.0) and 7.0 (Q1=5.0, Q3=8.0) for TPRNU and 203.0 (Q1=198.0, Q3=230.0) and 5.0 (Q1=5.0, Q3=7.0) for RPRNU. No differences between surgical techniques were found for both variables,  $p=0.403$  and  $p=0.501$ . Finally, 14.3% ( $n=2$ ) of patients who underwent TPRNU revealed positive surgical margins compared with none of the patients submitted to RPRNU, but with no statistical differences,  $p=0.487$ .

**Conclusions:** Both techniques are safe and reliable with comparable intraoperative and postoperative complications, operative times, hospital stay, and oncological results. Therefore, the choice should be

based on the surgeon's experience and preference.

#### CT 42

### Colonization of carbapenemase-producing Enterobacteriales (CPE) in the context of an outbreak – impact on morbidity after ureteroscopy (URS)

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**Introduction/Objectives:** URS is one of the most used treatments for urinary stones with 9-25% overall complications, including 15% urinary tract infections (UTI) and 5% urosepsis. In 2022, an outbreak of CPE was detected with 40-50% morbidity due to limited treatment options in this multidrug-resistant set. So, we aim to evaluate the CPE colonization in urine culture (UC) and rectal swabs (RS) before URS for urinary stones and its impact on patient morbidity.

**Material and Methods:** We conducted a retrospective observational single-center study including all patients who underwent URS for urinary stones in 2022. Statistical analysis was done using IBM®SPSS®, version 27.0.

**Results:** A total of 381 patients were enrolled in this study, with the most prevalent comorbidity being diabetes mellitus (20.2%). Most patients didn't have a previous indwelling urinary catheter (59.9%) and the prevalence of antibiotic treatment in the last 6 months was 50.7%, being cephalosporines the most used (44.4%). The prevalence of colonization by any bacteria in UC was 39.1% and the prevalence of RS and UC colonization by CPE was 10.5% and 16.0%, respectively. Despite that, antibiotic prophylaxis beyond perioperative was low (15.2%), and most commonly two days (6.6%). Flexible URS was the most common (60.6%) with a sin-

gle stone (65.4%) and a median operative time of 24.0 minutes. 99.2% of patients had a postoperative catheter (55.1% double-J). Patients with CPE colonization on RS and UC were associated with 37.9% UTI with hospitalization ( $p < 0.001$ ,  $r_i = 3.4$ ), 6.9% of bacteremia ( $p = 0.011$ ,  $r_i = 4.7$ ), and 41.4% of at least one early complication ( $p < 0.001$ ,  $r_i = 3.4$ ). Even among patients with CPE colonization on RS (but not in UC), 45.5% [ $r_i = 2.8$ ] had UTI with hospitalization, and 45.5% [ $r_i = 2.4$ ] presented with at least one complication. These results remained statistically significant even when adjusted for the previously cited confounders. Otherwise, the prevalence of UTI with hospitalization and having at least one early complication were significantly lower in patients with negative RS and UC (6.6%,  $r_i = -3.0$ ; 9.6%  $r_i = -2.5$ , respectively). **Conclusions:** In patients who aren't colonized by CPE in either RS or UC, the risk of infectious complications after surgery or having at least one complication is similar to previous literature. However, RS colonization by CPE significantly increases these rates, highlighting the urgency of stopping this outbreak and preventing antibiotic resistance.

### CT 43

#### A COMPARATIVE STUDY OF DEEP LEARNING METHODS FOR MULTI-CLASS SEMANTIC SEGMENTATION OF 2D KIDNEY ULTRASOUND IMAGES

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**Introduction:** The kidney is an important and complex organ in the human body that can be divided into three principal regions: the renal cortex, renal medulla, and renal pelvis, being responsible for the elimination of metabolic and endocrine waste, ensuring the internal environment stability of the body and maintaining metabolism efficiency [1]. The diagnosing and monitoring of various kidney diseases and surgical kidney procedures normally rely on Ultrasound (US) imaging, becoming the first-line imaging modality recommended to assess the kidney's condition [6].

However, US images usually present poor quality and characteristic artifacts, that hamper the interpretation of the images. Despite the high importance shown in kidney segmentation tasks, there is a lack of investigation into the segmentation of internal structures of the kidney which also has great clinical relevance [9]. objective: In this study, we present a benchmark of 7 recent DL architectures (DynUnet [4], SwinUNETR [2], UNet++ [10], DeepLabV3+ [3], FCN [5], PSPNet [3], and the traditional UNet([7]) for semantic segmentation of the kidney and its internal structures, namely renal cortex, renal medulla, and Central Echogenic Complex (CEC) in a publicly available 2D US dataset [8].

**Methodology:** The present study was performed using the Open Kidney US Dataset (OKUD), a compilation of 514 2D ultrasound kidney images. The dataset underwent annotation by two highly experienced sonographers. Their annotation tasks encompassed image quality assessment, image orientation labeling, and manual segmentation of kidney components. Notably, only images categorized as "fair" or "good" in quality were included for subsequent segmentation tasks. The dataset was then partitioned into training (80%), validation (10%), and testing (10%) sets, with exclusions for images lacking all four required segmentation classes. To enhance model robustness and reduce overfitting, a series of spatial and intensity-based data augmentation techniques were introduced during training (random adjustments for brightness, contrast, and color, optical distortions, zooming, shifting in multiple directions, rotations, flips, and the addition of Gaussian noise).

**Results:** Since the dataset used in this work provides the segmentation from two experts, three different training strategies were evaluated: 1) training the networks using manual labeling from Sonographer 1 (S1); 2) training using manual labeling

from Sonographer 2 (S2); and 3) training using manual labeling from both Sonographers (S1S2). Regarding the S1 training strategy, The UNet achieved the highest average Dice and average SSD score, with 79.5% and 5.7 pixels. Regarding the S2 training strategy, the UNet achieved the highest average Dice coefficient of 77.6% with 7.5 pixels of SSD. Regarding the S1S2 training strategy, DeepLabV3Plus achieved the best average Dice and second-best average SSD with 78% and 6.6 pixels outperforming the inter-rater variability of 75.6% of Dice and 7.6 pixels of SSD. Figure 1 shows an example of the segmentation results for each one of the seven trained models with the S1S2 strategy. Discussion/ Conclusion: This study compares seven advanced deep learning networks for kidney and internal structures segmentation in 2D US images. Overall, DeepLabV3+ performed better than inter-rater variability between labels provided by two sonographers. Future studies foresee to use of larger and more representative datasets to further validate the findings.

#### CT 44

### EVALUATION OF CLINICOPATHOLOGICAL FACTORS ASSOCIATED WITH ISUP UPGRADING IN LOW-RISK PROSTATE CARCINOMA PATIENTS

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**Introduction:** Prostate cancer (PCa) remains a significant clinical challenge, with concerns over overtreatment prompting the exploration of alternative management strategies for low-risk patients. Active surveillance (AS) has emerged as the first option for carefully for these patients. However, the accuracy of risk assessment, particularly for patients with Internation-

al Society of Urological Pathology (ISUP) grade  $\leq 2$ , is hindered by the limitations of transrectal ultrasound (TRUS)-guided prostate biopsy in representing the true Gleason grade of the entire tumor. Some studies showed that PSAD, higher PI-RADS score and percentage of positive cores are independent predictors of postoperative ISUP upgrading in low-grade disease at biopsy.

Post-radical prostatectomy (RP) analysis often reveals discordance between biopsy and postoperative specimens, leading to potential misclassification and inappropriate clinical decisions.

**Objective:** This retrospective study seeks to identify clinicopathological factors associated with the upgrading of ISUP grade in low-risk prostate cancer patients.

**Materials and Methods:** In this retrospective study, we analysed data from 192 patients who underwent robotic radical prostatectomy. Among these, 17 patients were classified as low-risk prostate cancer cases based on established criteria. We collected and assessed several clinical variables to investigate their association with ISUP grade upgrading. These variables included age, total PSA, PSA Density (PSAD), prostate volume, biopsy type, number of positive cores and total number of cores. The primary outcome measure was ISUP grade upgrading. We conducted statistical analyses, using IPSS, to explore potential associations between the aforementioned clinical variables and ISUP grade upgrading.

**Results:** The upgrading rate was 37,5%. In our study of low-risk prostate cancer patients undergoing robotic radical prostatectomy, none of the examined clinical variables displayed a statistically significant association with ISUP grade upgrading. 41.2% of patients were stage pT3a. 2 patients (11.8%) exhibited cribriform pattern, which is associated with worse outcomes. Perineural invasion was identified in 64.7% of patients. One patient experi-

enced biochemical recurrence and underwent salvage radiotherapy.

**Conclusion:** Further studies with larger cohorts and potentially more advanced predictive models may enhance our ability to identify patients at higher risk of ISUP upgrading and guide personalized treatment strategies.

## CT 45

### LOOKING AFTER “UNDERAGE” STONES – AN OVERVIEW OF OUR EXPERTISE IN THE ENDOUROLOGICAL MANAGEMENT OF THE PEDIATRIC POPULATION

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**Introduction:** Kidney stones, also referred to as urinary lithiasis, is a disorder marked by the development of solid, mineral-based concretions within the urinary tract. The incidence, in pediatric age, has been increasing over the past two decades, possibly due to changing dietary and physical activity patterns. Owing to the high incidence of predisposing factors for urolithiasis in children (up to 75%), as well as the frequency of stone recurrences (up to 65%), a complete evaluation of every child after the first urinary stone is advisable. In the management of urinary stones in this population, various endourological alternatives to shock wave lithotripsy have gained prominence in recent years. Endourological surgery has become a less invasive and extremely effective method of treating urinary lithiasis, catering to the unique needs and characteristics of young patients.

**Objectives:** In order to improve the care given to young patients with renal stones, we propose to evaluate our database of pediatric patients treated with ureterorenoscopy (URS) to assess and retrieve valu-

able insights into the safety, efficacy, and long-term outcomes of this procedure in the pediatric population.

**Material and Methods:** Twelve infants, seven males and five females aged from 2 to 16 years of consecutive case series with upper urinary tract calculi were included from January 2013 to May 2023. Retrospective information of the twelve infants was analyzed to characterize the population, previous diseases, usage on antibiotics and investigate the efficacy and safety of the URS in treatment of pediatric urolithiasis of upper urinary tract. Before operation, diagnosis was performed by routine ultrasound, plain radiograph of the abdomen or urinary tract CT scan in all patients. Every patient had a previous urine culture and did prophylactic antibiotics peri-procedure.

**Results:** The median age of the twelve patients was nine years-old (3-16) and there were seven male and five female among them. Overall, seven had a history of urinary tract infection, four patients had known genetic syndrome disease, two had cystinuria and none had any malformation of the urinary tract. *Proteus mirabilis* was the most prevalent isolated agent in the population with a recorded positive urine culture (50%), followed by *Klebsiella pneumoniae* (33%) and *Escherichia coli* (17%). Around 25% of infants had already taken 3 or more different classes of antibiotics, while 16% had taken 2 and 58% had history of taking only one class of antibiotics. Second-generation cephalosporins were the most frequently prescribed antibiotics (91% of infants had a history of taking them at least once), followed by co-trimoxazol (66%) and penicillins (66%). Five patients had their stone analyzed with 60% of them having a mixed calcium oxalate with calcium phosphate stones, 20% had struvite stones and the remaining 20% had a mixture of struvite with ammonium urate stones. Seven individuals had left-sided

stones, four had right-sided stones, and one had bilateral stone disease (also associated with a history of cystinuria). Stone-free rates after one procedure were achieved in 50% of cases, after two in 33% required two, and 17% required three or more interventions. It's interesting to note that two of the latter infants were the only ones who were under prophylactic antibiotics for recurrent urinary tract infections and only one had diagnosis of cystinuria. No major complications were noted.

**Discussion/Conclusions:** In conclusion, endourological procedures have evolved into an important tool in treating kidney stones in young patients. Our joint experience of the urologic and pediatric surgery department in treating this population is similar to what is reported in the literature making this a safe and viable alternative for treating urinary lithiasis in the pediatric population. Of note is the high burden of antibiotics which is a significant concern for the development of resistant species.

#### CT 46

#### TERAPÊUTICA COM OXIGÊNIO HIPERBÁRICO NA CISTITE RÁDICA – RESULTADOS DOS ÚLTIMOS 14 ANOS DE EXPERIÊNCIA NA REGIÃO AUTÓNOMA DA MADEIRA

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**Introdução:** A radioterapia utilizada para o tratamento de cancros pélvicos, tais como o cancro do endométrio, colo do útero, vesical ou prostático apresenta como efeito adverso tardio (meses ou anos após exposição) a cistite rádica (CR) em 5-15% dos doentes. A sua fisiopatologia, apesar de não totalmente compreendida, consiste na inflamação crónica e fibrose associadas a uma redução da densidade vascular e celular urotelial e do musculo liso. Clinicamente traduz-se em sintomas de hematú-

ria, polaquiúria, urgência e/ou disúria que podem afetar a qualidade de vida destes doentes. Existem múltiplas modalidades de tratamento disponíveis, quer para casos de baixa a moderada gravidade, como anticolinérgicos e analgésicos, assim como para casos de hematúria severa, que podem necessitar de intervenções cirúrgicas com evacuação de coágulos ou até instilação local de ácido hialurónico ou formaldeído. Contudo, a cistite rádica, mantém-se uma entidade de difícil controlo sintomatológico. Assim, a terapêutica com oxigénio hiperbárico (OH) apresenta-se como alternativa, demonstrando na literatura taxas de resposta completa de 87%, com recorrência entre 0-35%. Apresenta, ainda, baixa incidência de efeitos adversos, de aproximadamente 10%. A terapêutica com OH consiste em colocar o doente em ambiente de aumento de pressão atmosférica a respirar oxigénio a 100%. O aumento da oxigenação dos tecidos leva a um aumento da angiogénese, redução da inflamação e estimulação de células estaminais, promovendo reestruturação dos tecidos e redução dos sintomas.

**Objetivo:** Comparar a casuística da Região Autónoma da Madeira (RAM) com os dados epidemiológicos da literatura

**Material e Métodos:** Análise retrospectiva de 10 casos consecutivos de CR submetida a tratamento com OH ocorridos entre janeiro de 2009 e setembro de 2023

**Resultados:** Durante os 14 anos de experiência na RAM com terapêutica com OH na CR foram tratados 10 doentes em ambiente de pressão atmosférica de 2,5 bar, a 15 metros de profundidade, a respirar oxigénio a 100%, durante 100 minutos, por tratamento. A maioria dos doentes tratados é do sexo feminino (60%) e as etiologias de cistite rádica observadas foram RT no contexto de cancro do colo do útero (66,7%) e cancro do endométrio (33,3%). Nos doentes do sexo masculino (40%) as etiologias encontradas foram RT

no contexto de cancro da próstata (75%) e cancro da bexiga (25%). A idade média dos doentes é 61,5 anos. Foram realizados em média 26 tratamentos por doente e foram reportados efeitos adversos em 3 doentes. Os efeitos adversos reportados foram 1 caso de convulsão, 1 caso de otalgia e 1 caso de efeitos gastrointestinais (náuseas). O tratamento com OH foi complementado com intervenções cirúrgicas para controlo hemorrágico em 4 doentes com hematúria. O tempo médio de follow-up foi de 59,4 meses. Verificou-se uma resposta completa em 80% dos casos e uma taxa de recorrência de 20%. O tempo médio até recorrência foi de 27 meses.

**Discussão/Conclusões:** A experiência da RAM na terapêutica com OH na CR apresenta resultados positivos que são sobreponíveis aos da literatura com uma taxa de resposta completa de 80%. De facto, a taxa de recorrência observada, de 20%, foi também concordante com a evidência científica, sendo o tempo médio até recorrência muito elevado aos 27 meses. Assim, a terapêutica com OH apresenta elevada eficácia e mesmo nos casos de recorrência, um longo período livre de sintomas. Foram verificados efeitos adversos em 30% dos doentes, um pouco acima da literatura, contudo em apenas 1 doente este apresentou gravidade (convulsão por hiperóxia). Concluimos, portanto, que a Terapêutica com Oxigénio Hiperbárico deverá ter lugar no tratamento da Cistite Rádica. Contudo, mais estudos, com uma maior casuística, deverão ser realizados para compreender se este recurso deverá ser utilizado em todos estes doentes, tendo em conta o seu custo-benefício e baixa disponibilidade de câmaras hiperbáricas, e qual será o melhor timing para o mesmo.

## CT 47

### A COMPARATIVE STUDY OF SURGICAL TECHNIQUES FOR VARICOCELE IN ADOLESCENT MALES

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**Introduction:** With an incidence of approximately 15%, left-sided varicocele is a common urologic condition in the adolescent male. However, the indications for treatment remain controversial. Adding to the discussion, the best technique to do so continues to be a topic of debate. The goal of this study was to comprehensively compare the outcomes of different surgical techniques employed at our centre.

**Methods:** We conducted a retrospective study that included 83 varicocele patients treated by open modified Palomo technique (group A, n=39), laparoscopic classic Palomo technique – *en bloc* ligation – (group B, n=32) and laparoscopic lymphatic sparing classic Palomo procedure (group C, n=12), by both the Paediatric Surgery and the Urology departments, from January 2017 to June 2023. We compared demographic data, surgical technique, operation time (OT) and complication rates. Statistical analysis was made using IBM SPSS® and for all tests a p value<0.05 was considered statistically significant.

**Results:** Our patients had a median age of 14 at surgery, and most of them (86%) were day-cases. The OT was significantly longer in groups C (41.5 ± 13.0 min) and A (33.0 ± 10.6 min) than in group B (26.5 ± 10.8 min) (p=0,002). Fifteen patients (18%) reported postoperative hydrocele and 8 patients (9.6%) recurred. The other reported complication was wound-site infection (n=1). *De novo* hydrocele was more prevalent in group B (n=10, 31.2%) than group C

and A (n=2, 16.7% and n=3, 7.6%, respectively, p=0.037). Group B patients were also the only ones requiring hydrocelectomy (n=5). Group A had a non-significant higher recurrence rate (n=6, 15.4%) than group B (n=1, 3.1%) and C (n=1, 8.3%), p=0.220. Of these, 5 were reoperated with different techniques.

**Conclusion:** According to our results, laparoscopic *en bloc* ligation had more postoperative hydroceles. This is probably due to the modified Palomo technique itself and not the approach. Hence, lymphatic sparing surgery is cited as advantageous in terms of decreasing postoperative hydrocele while maintaining a low recurrence rate. However, the small sample size and initial experience with the technique may have affected our results and restrict our conclusions.

## CT 48

### PORTUGUESE WOMEN IN UROLOGY: A NATIONAL SURVEY

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**Introduction:** In 1996, only 1.6% of Urologists in the Portuguese Medical Association were women. While in 2022 about 56% of all the portuguese medical practitioners were women, only 7% (34) of them were female urologists, compared to 17% of European Association of Urology female membership. According to the Association of American Medical Colleges, women made up 51.5% of the first-year medical school class in 2022, compared to 47.9% in 2012. Moreover, in the USA, the number of women entering urology residency programs has increased by 50% since 2012. This is a significant increase, and it is likely that the trend will continue in the years to come. The growth in the number of wom-



en in medical schools is a positive development as women bring a different perspective to medical practice and contribute to a more diverse and inclusive healthcare system. Still, these numbers highlight how far we are from reaching gender balance in urology. This may be related to the still existing gender stereotypes that claim that some specialties are more appropriate for men rather than for women, but also to women's understanding of urology as a sexist field.

**Objective:** To assess data on the national urological community perception of gender inequalities in the urological practice.

**Material & Methods:** An anonymous electronic survey was sent out to the Portuguese Urological Association members. The survey was targeted at attending and resident urologists in Portugal. The association between two categorical variables was evaluated by using the Chi-square test, with p-values <0.05 deemed statistically significant. When dealing with small counts (when at least one expected frequency is less than five), Fisher's exact test was employed.

**Results:** There were 101 survey responses: 29 (28.7%) female and 72 (71.3%) male; 62 (61.5%) were attendings, 39 (38.8%) were residents. The average respondent age was 40 years-old, ranging from 25 to 75 years-old.

Of the female resident respondents, 38.8% believe that training opportunities (for instance, surgical time) are different between men and women, compared to 0% of the men ( $p < 0.001$ ). With regards to salary discrepancies in private practice, 68% of the men believe that there are none, compared to only 24.1% of the women ( $p < 0.001$ ). Nevertheless, 44.8% of women vs 29.1% of men claim that they don't know the answer to this question. Concerning career progression, none of the female attendings had a PhD or a Masters Degree, versus 26,9% of the male

attendings who had these accreditations. However, 13.6% of the females had completed the accreditation of the European Board of Urology vs 45.9% of the men, with the differences not statistically significant ( $p = 0.87$ ). Additionally, 44% of the women claim that scientific opportunities are different, compared to 6.9% of the men ( $p < 0.001$ ). Interestingly, both genders believe that being a female may be a decisive factor in choosing Urology as a field of interest: 55.2% of the females and 50% of the males ( $p = 0.313$ ). Finally, the majority of female respondents (65.5%) state that they had waited, or are currently waiting until the end of the residency training in order to have children, contrasting with 29.1% of the men ( $p < 0.001$ ).

**Discussion/Conclusion:** Gender disparity still seems to be a concern in the field of Urology. Effective anti-discrimination measures should be considered at institutional and national levels to overcome gender differences. However, the implementation of these plans cannot be achieved by women alone, instead it requires a joint effort by the entire urological community.

#### CT 49

#### CORPO ESTRANHO – UMA CAUSA RARA DE ABCESSO PENIANO

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**INTRODUÇÃO:** O abcesso peniano é uma entidade clínica rara, sendo a sua localização mais frequente os corpos cavernosos. A etiologia deste inclui trauma, injeções intra-cavernosas, instrumentação peniana, priapismo, disseminação hematológica de infeção à distância, tuberculose ou infeções sexualmente transmissíveis. Ainda que raramente, abscessos penianos podem causar fascíte necrotizante caso não sejam atempadamente diagnosticados e tratados.

**CASO CLÍNICO:** Um doente do sexo masculino de 63 anos, com antecedentes de hipertensão arterial, dislipidemia e obesidade recorre ao serviço de urgência por febre com dois dias de evolução e fibrilhação auricular com resposta ventricular rápida. Após internamento na Cardiologia e cardioversão procedeu-se a pesquisa de foco infeccioso. Realizou TAC abdómino-pélvica com identificação de corpo estranho que se estendia do canal anal ao corpo cavernoso esquerdo, com abscesso deste. Realizou uma colonoscopia, sem alterações, e uma anamnese cuidada revelou a ingestão de uma refeição de frango 6 dias antes da data de entrada na urgência. À exploração cirúrgica constatou-se abscesso peniano causado por osso de frango - procedendo-se a remoção do mesmo e drenagem do abscesso. O doente evoluiu de forma favorável no pós-operatório cumprindo 14 dias de antibioterapia empírica com piperacilina-tazobactam e na reavaliação aos 2 meses encontrava-se completamente recuperado, sem compromisso da função sexual.

**DISCUSSÃO:** A migração de um osso de frango através do canal anal é uma causa rara de abscesso peniano. Este caso destaca a importância de uma avaliação clínica minuciosa perante a suspeita de um quadro infeccioso de foco a esclarecer. As comorbilidades do doente, como a hipertensão arterial, a dislipidemia e a obesidade podem afetar a sua resposta imune e ter aumentado a susceptibilidade para a perfuração do canal anal e migração do osso de galinha através do mesmo. O reconhecimento atempado, o diagnóstico preciso e a exploração cirúrgica aquando o diagnóstico foram cruciais para evitar complicações adicionais e para garantir o melhor outcome.

## CT 50

### HEMATOMA ESCROTAL EM EXPANSÃO - UMA COMPLICAÇÃO RARA DO ACESSO FEMORAL PERCUTÂNEO

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**Introdução:** A artéria femoral é frequentemente utilizada como acesso percutâneo em diversas intervenções do foro endovascular. A cateterização transfemoral apresenta um bom perfil de segurança, sendo possível minimizar as suas complicações através da compressão manual do local de punção ou através do recurso a dispositivos de compressão vascular. O hematoma escrotal constitui uma complicação rara desta técnica, resolvendo na maioria dos casos com terapêutica conservadora.

**Objetivos:** Descrever uma complicação rara e potencialmente grave do acesso percutâneo transfemoral e realçar a importância de um atempado diagnóstico e abordagem urológica neste tipo de situações.

**Material e Métodos:** Descrevemos o caso clínico de um doente submetido a angioplastia transluminal percutânea complicada por volumoso hematoma escrotal em expansão com necessidade de intervenção cirúrgica urgente.

**Resultados:** Homem, 74 anos, com antecedentes de isquémia crónica do membro inferior esquerdo grau III (Leriche-Fontaine), com doença aorto-iliaca e femoro-popliteia, hipertensão arterial e dislipidemia, medicado com bisoprolol, ácido acetilsalicílico, losartan e sinvastatina. Foi submetido eletivamente a uma angioplastia com stent expansível da artéria ilíaca comum esquerda por acesso femoral percutâneo ecoguiado, e encerramento com dispositivo de compressão vascular Mynx<sup>®</sup>. Cerca de duas horas após a intervenção, referiu

dor intensa na região inguinal esquerda, acompanhada de um exuberante aumento de volume do hemi-escroto homolateral. Avaliação laboratorial evidenciando queda de Hb de 9.5 para 7.5 g/dL com necessidade de suporte transfusional e angio-TC que revelou foco de hemorragia ativa na artéria femoral comum esquerda, condicionando volumoso hematoma escrotal em expansão. Foi decidida a re-intervenção com carácter emergente pelas equipas de Cirurgia Vascular e Urologia, tendo sido submetido a revisão de hemostase e drenagem de extenso hematoma escrotal, sendo confirmada a integridade e viabilidade testicular bilateralmente. O doente apresentou boa evolução clínica, tendo tido alta em D9 de pós-operatório depois de ter realizado ecografia escrotal de controlo sem evidência de alterações de relevância.

**Discussão / Conclusões:** O acesso transfemoral constitui uma das vias de eleição para intervenções endovasculares, como cateterismos cardíacos e angioplastias. Apesar de relativamente segura, a punção femoral acarreta alguns riscos como hemorragia e hematoma do local de acesso, fístula arteriovenosa, pseudoaneurisma e infeção. O hematoma escrotal é uma complicação rara, com apenas escassos casos descritos na literatura. A artéria femoral comum tem origem na artéria ilíaca comum externa quando esta passa inferiormente ao ligamento inguinal, implicando que uma hemorragia de uma punção acima deste nível possa originar um hematoma retro ou pré-peritoneal, promovendo a disseção dos tecidos até ao cordão espermático. Por outro lado, um acesso transfemoral que atravesse o canal inguinal pode ocasionar a uma hemorragia a este nível, com desenvolvimento de hematoma escrotal. A abordagem destes casos deve ser célere, podendo mesmo constatar-se instabilidade hemodinâmica e evolução para choque hemorrágico. A estratégia

terapêutica deve ser ajustada ao contexto clínico e à gravidade do quadro, sendo determinante o contributo da Urologia na abordagem escrotal e exclusão de eventual isquémia testicular por compressão do hematoma. O hematoma escrotal é uma complicação urológica rara do acesso femoral percutâneo com potencialidade para desencadear significativa morbilidade, sendo necessário estar alerta para esta situação clínica com vista à sua deteção e abordagem precoces.

## CT 51

### PENILE PROSTHETIC IMPLANTATION – CLINICAL OUTCOMES OF 18 YEARS OF EXPERIENCE IN A TERTIARY HOSPITAL CENTER

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**Introduction:** Erectile dysfunction is a multifactorial disorder which affects deeply quality of life. In this report, we will focus on erectile dysfunction of organic cause refractory to medical therapy. For this subsection of patients, the most reliable therapeutic option remains penile prosthesis (PP) implantation.

**Objectives:** To describe the population of men with refractory erectile dysfunction (RED) who has undergone PP implantation regarding the postoperative outcomes and patient satisfaction.

**Methods:** We conducted a cross-sectional study including all patients with RED who have undergone PP implantation in a tertiary hospital center, between 01/01/2005 and 31/12/2022.

**Results:** The mean follow-up time was  $44.32 \pm 1.1$  months. The most common comorbidity was high blood pressure, (n=31, 62%), followed by *Diabetes Mellitus* (DM),

found in 25 patients (50%). In the overall, the most common etiology was arterio-genic (n=18, 36%). Regarding the PP type, 14 patients (28%) placed a semi-rigid prosthesis (SRPP) and 36 (72%) opted for an inflatable prosthesis (IPP). In general, 36 patients (72%) didn't have any complications requiring surgical intervention. Infection and mechanical PP failure have been reported in 6 patients (12%) each and erosion in 2 (4%), leading to PP removal in 9 patients (18%). Most of the complications were within the first year (n=6, 12%). When we compare them considering their metabolic comorbidities, 3 patients (25%) without any comorbidity had complications, *versus* 11 (28.9%) patients with at least one comorbidity, with no statistical difference (p=0.791). In a sub analysis by comorbidity, DM didn't increase the risk of complications (p=0.529). Regarding satisfaction, 32% of the patients were satisfied, although 10% didn't adjust.

4 patients (8%) were treated in ambulatory setting, with no complications nor need to be re-hospitalized.

**Discussion:** Penile prosthesis implantation remains a safe surgery, although there is a significant complication rate. Most complications appear in the first year, and the appearance of complications is not related to comorbidities. DM, often associated with higher risk of infections, had no influence here. Overall satisfaction rate remains high. This surgery in an outpatient setting is becoming a relevant option.

## CT 52

### HOMEM COM MAIS DE 80 ANOS E ELEVAÇÃO DO PSA: MOTIVO DE REFERENCIAÇÃO?

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**Introdução:** O cancro da próstata é o segundo cancro mais frequente no homem. A idade média de deteção é 67 anos, sendo que apenas 4.4% dos casos ocorrem em homens com  $\geq 85$  anos. O rastreio precoce com doseamento do PSA é benéfico na deteção de doença clinicamente significativa e diminuição de mortalidade associada à doença, mas também aumenta o diagnóstico de doença de baixo risco e, conseqüentemente, sobretratamento. O rastreio em indivíduos com mais de 80 anos é muitas vezes questionado, devido as características indolentes da maioria das neoplasias diagnosticadas nesta faixa etária e a esperança de vida desta população. **Objetivo:** Este trabalho tem como objetivos avaliar se doentes acima dos 80 anos beneficiam de fazer doseamento periódico do PSA com intuito diagnóstico.

**Material e métodos:** Foi realizada uma análise retrospectiva das primeiras consultas realizadas na instituição no período de 2021-2022. Os critérios de inclusão dos doentes foi terem idade superior ou igual a 80 anos e referenciação para a consulta de urologia por elevação do PSA. Adicionalmente, podiam ter sintomas urinários e/ou alterações no toque retal. Foram excluídos doentes com idade inferior à supracitada e com diagnóstico prévio de carcinoma da próstata. Os dados foram colhidos recorrendo ao processo clínico eletrónico e posteriormente analisados utilizando o programa SPSS.

**Resultados:** Durante o período estabelecido, foram avaliadas 73 consultas com os critérios de inclusão supracitados. A ida-

de média dos doentes foi de  $84.33 \pm 3.73$  anos. O intervalo de valores do PSA de referência foi de 2.49-607.93 (ng/mL), sendo o valor médio 35.56 (ng/mL). 38/73 (52.05%) doentes tinham sintomas urinários associados e 27/73 (36.99%) toque prostático alterado. Em 21 doentes foi realizada biópsia prostática como primeira abordagem (30.14%), sendo os valores de PSA entre 7.24-607.93 (ng/mL). Quatro iniciaram tratamento por diagnóstico presuntivo de adenocarcinoma prostático e dois foram propostos para prostatectomia simples. Os restantes (46/73, 63.01%) ficaram em vigilância, clínica e/ou com doseamento do PSA semestral. Durante o seguimento, sete destes doentes (15.22%) realizaram biópsia prostática por persistência de elevação do PSA. Em 24 doentes foi detetada neoplasia maligna nos fragmentos de biópsia, oito feito diagnóstico presuntivo e dois tiveram diagnóstico accidental de malignidade nas peças de prostatectomia simples. Nestes doentes, os valores de PSA oscilaram entre 6.31-607.93 (ng/mL). Em 77.4% destes doentes (24/33) verificou-se que tinham sintomas urinários e/ou toque prostático alterado, sendo que nem todos tinham menção de realização de toque prostático durante o seguimento. As classificações ISUP mais frequentes foram 2 e 3. Foi realizado em 23 doentes estadiamento (23/33, 69.67%), sendo positivo em 9/23 (39.13%). Em termos de tratamento, 25/33 (75.76%) iniciaram hormonoterapia, sendo em três concomitante com quimioterapia. Cinco ficaram em vigilância, 1 proposto para radioterapia e 1 foi proposto para RTU-P e orquidectomia bilateral. Um dos doentes aguarda estadiamento para decisão terapêutica. 11 faleceram durante o seguimento, sendo que 7 tinham diagnóstico de neoplasia prostática e encontravam-se sob tratamento. Nenhuma morte parece ter sido relacionada com a neoplasia ou tratamento instituído.

**Discussão:** Com este trabalho verifica-se

que em doentes com idade superior ou igual a 80 anos, principalmente quando tem sintomas urinários/toque prostático alterado e PSA > 6 ng/mL, o rastreio com doseamento de PSA pode ser utilizado na orientação destes doentes, quer seja para diagnóstico clínico, quer seja para orientar na marcha diagnóstica. Verifica-se também que, quando é feito o diagnóstico histológico, o valor de ISUP é intermédio, confirmando que, nesta faixa etária, as neoplasias diagnosticadas não são de natureza agressiva, obrigando a um tratamento mais temporizado.

**Conclusão:** O doseamento de PSA em doentes nesta faixa etária deve ser guiado pela clínica e pelos achados no exame objetivo, devendo o valor para referência ser ajustado à idade.

### CT 53

#### MULTIDRUG RESISTANCE IN A TERTIARY CENTER UROLOGY DEPARTMENT

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**INTRODUCTION:** Easy access to antibiotic therapy and its often indiscriminate use has led to the emergence of increasingly resistant bacterial strains, which has caused an international health crisis due to the difficulty in treating them and the severity of the infections.

**OBJETIVES:** to analyze the current spectrum of bacteria circulating in patients evaluated in the urology department, both inpatient and outpatient, particularly their antibiotic resistance profile.

**PATIENTS AND METHODS:** Descriptive cross-sectional study that included 483 uroanalysis in a Urology and Renal Transplant of a tertiary care center between January 2020 to December 2022. Convenience

sampling was used. Multidrug resistance was defined as lack of susceptibility to at least one agent in three or more chemical classes of antibiotic.

**RESULTS:** The sample consisted of 167 women (53.9%), with an average age of 67 years (+/- 16.5). 194 were outpatients (63%) and 116 patients were assessed in an emergency or inpatient setting (36,9%). 11 were carbapenemase-producing *Klebsiella* (CPK) positive and 26 (96,5%) were beta lactamase producers (BLP). 124 of the bacteria isolated met multidrug resistance criteria (40%), 124 of the bacteria isolated met the criteria for multidrug resistance (MDR), with the most frequently resistant classes of antibiotics being penicillins (183, 59%), quinolones (124, 40%), cephalosporins (94, 30.3%) and cephalosporins (94, 30.3%). The most frequently isolated microorganism was *E. Coli* (n=121, 39%), followed by *Klebsiella* spp (n=73, 23.5%), from which 31 (25,6%) and 52 (71,2%) were MDR, respectively. *E. Coli* showed intermediate sensitivity to cephalosporins overall, although it showed a good response profile to cefuroxime, one of the most commonly used cephalosporins. The same applies to *Klebsiella* spp, whose sensitivity profile to cephalosporins as a whole is unfavorable, and yet apparently good for cefuroxime and cef-tazidime. *Pseudomonas Aeruginosa*, the third most common gram-negative bacterium, has an intermediate or unfavorable resistance profile to most of the available antibiotics, including carbapenems, with a higher probability of susceptibility only to more powerful antibiotics, namely Amikacin and Colistin. On the other hand, within gram-positive bacteria they show an excellent response to antibiotics such as vancomycin and linezolid, with some strains also being susceptible to fosfomicin and nitrofurantoin.

**CONCLUSIONS:** The increasing use of antibiotics over the years has significantly

altered the microbiota of patients using the national health service, as well as allowing a natural selection that has favored the growth of bacteria that are more resistant to the available antibiotics. This analysis allows the most appropriate and rational use of antibiotic therapy adjusted to the bacteria currently circulating in our service, limiting, as far as possible, the growth of more resistant bacteria. Nevertheless, we should keep in mind that these are in-vitro results, and not completely reliable in reality. A bigger sample will allow more accurate assumptions.

#### CT 54

### CHALLENGES AND BENEFITS OF TRANSITION APPOINTMENTS FOR YOUNG ADULTS WITH LIFELONG NEUROUROLOGICAL NEEDS FROM PEDIATRIC TO ADULT SERVICES

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The transition from pediatric to adult healthcare services presents a complex and critical juncture for young adults with lifelong neurourological needs. This paper delves into the challenges and benefits associated with the transition appointment process for this vulnerable population; recognizing the unique requirements of young adults facing neurourological conditions, emphasizing the importance of a well-structured transition plan that accounts for medical, social, and psychological aspects.

Challenges during this transition period include the potential loss of continuity of care, differences in healthcare systems, limited adult providers with expertise in neurourological conditions, and the emotional stressors associated with leaving familiar pediatric settings. These challenges

can result in gaps in care, worsened health outcomes, and increased healthcare costs. However, we also highlight the significant benefits of a well-executed transition process. A seamless transition can empower young adults to take ownership of their healthcare, foster independence, and enhance their overall quality of life. Furthermore, it can mitigate the risk of medical crises and ensure that individuals receive appropriate and timely care throughout their adulthood.

Thus, in Lisbon Central Medical Center, we began our Transition appointment, with a multidisciplinary team involving Urology, Pediatric Surgery and a nursing team, in a familiar, comfortable environment, thereby ensuring an efficient and pleasant transition to adult urology. So far, several patients have successfully transitioned to adult urology, while some maintain transition appointments, including a few surgical procedures made in cooperation with both specialties.

At this point, we consider our transition appointment a clear success and a valuable asset in the management of young chronic urological patients, underscoring the importance of a multidisciplinary approach involving healthcare providers, caregivers, and the young adults themselves. Key elements of successful transition appointments include early planning, education, clear communication, and the establishment of adult care providers with expertise in neurourological conditions. Additionally, peer support and the utilization of technological tools can aid in easing the transition process.

In conclusion, the transition of young adults with lifelong neurourological needs from pediatric to adult services is a complex journey filled with challenges and opportunities. By recognizing these challenges and proactively addressing them, healthcare systems can optimize the transition experience, ensuring improved

health outcomes, enhanced quality of life, and a more seamless transition for this vulnerable population.

#### CT 55

### ADRENALECTOMIA: LAPAROSCOPIA CLÁSSICA OU POR PORTA ÚNICA?

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**Introdução:** A adrenalectomia é um procedimento cirúrgico que consiste na excisão de uma das glândulas suprarrenais, habitualmente efetuada por via laparoscópica, indicada em casos de tumores adrenais funcionantes ou perante suspeita de malignidade das suprarrenais (primário ou suspeita de doença metastática). Habitualmente, as adrenalectomias são realizadas por via laparoscópica, através de uma abordagem transperitoneal ou retroperitoneal. Além da via da abordagem, este procedimento pode ser realizado através de uma única via de entrada (single-port) ou, classicamente, através de 3-4 vias de entrada. Com este trabalho, pretendemos realizar uma revisão das adrenalectomias realizadas num centro hospitalar terciário, comparando resultados entre a via laparoscópica clássica e porta única (single-port).

**Métodos:** Foram utilizados registos clínicos e cirúrgicos do nosso centro hospitalar dos doentes submetidos a adrenalectomias entre o período de 1 de janeiro de 2018 até 31 de agosto de 2023. A análise estatística foi realizada através do SPSS. Avaliou-se o número de dias de internamento, a via de abordagem e número de portas de entrada, as perdas sanguíneas, complicações associadas ao procedimento, maior eixo de dimensão do tumor e histologia do tumor.

**Resultados:** No total, no período de tempo definido, foram realizados 35 adrenalecto-

mias. Na maioria dos casos tratava-se de tumores funcionantes (tabela 1). Os indivíduos apresentavam uma mediana de idade de 61 anos e 16 (45,7%) eram do sexo masculino.

O grupo A (n=20) corresponde a laparoscopia clássica e o grupo B (n=15) a porta única. O tempo cirúrgico mediano foi de 91 minutos. A via laparoscópica convencional apresentou um tempo mediano de 91 minutos, com igual valor a via single-port de 91 minutos (p=0.961). A mediana das perdas sanguíneas foram de 50 mL, não se verificou diferença estatisticamente significativa entre grupos (p=0.871) tendo-se verificado em ambos os grupos uma mediana de 50 mL. Houve necessidade de internamento durante 3 dias (mediana). No caso do grupo A a intervenção por via laparoscópica convencional os dias de internamento eram superiores com uma mediana de 4 dias; no caso do single-port de apenas 3 dias, sendo esta diferença estatisticamente significativa (p=0.002). O tamanho mediano dos tumores é 45 mm de maior eixo - tumores funcionantes apresentavam uma dimensão mediana de 42 mm e de 68 mm em tumores não funcionantes. O grupo B continha tendencialmente tumores de dimensões mais pequenas quando comparado com o grupo A (mediana de 42 vs 51 mm), no entanto esta diferença não foi estatisticamente significativa (p=0.380). O tipo histológico mais comum foi o adenoma da cortical da suprarrenal (n=16), os restantes tipos histológicos encontram-se na tabela 2.

**Conclusão:** A adrenalectomia, embora relativamente incomum em grande parte dos serviços de Urologia, é um procedimento seguro e com baixa morbilidade a curto e longo prazo. Estes dados preliminares permitem concluir que a abordagem por porta única parece apresentar um perfil mais favorável a nível de dias de internamento. Nesta amostra, em termos de tempo cirúrgico e perdas hemáticas ambas as vias são

sobreponíveis. O tamanho tumoral também não teve influência na escolha de via.

## CT 56

### AQUABLAÇÃO DA PRÓSTATA: PRIMEIROS 102 DOENTES, DA SATISFAÇÃO AO TEMPLATE DO TRATAMENTO

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**Introdução:** Os sintomas do baixo aparelho urinário (LUTS) constituem um factor determinante na qualidade de vida dos homens com mais de 50 anos. Os tratamentos visam tratar essencialmente os sintomas, existindo múltiplas opções cirúrgicas. A aquablação da próstata destaca-se por se tratar do primeiro dispositivo robótico dedicado a esta patologia, utilizando um jacto de água sem transferência de energia térmica, culminado em procedimentos muito rápidos e com preservação da vida sexual plena. Este trabalho faz uma descrição dos primeiros casos realizados em Portugal, quer da população quer da cirurgia em si. Procura ainda fazer ruma avaliação inicial sobre aspectos técnicos relacionados com o desenho do tratamento.

**Objetivos:** Descrição da população tratada (idade, IMC, volume da próstata, CAPRINI, IPSS e VASUS). Descrição das variáveis associadas ao tratamento (tempos de passagem, tempos de cirurgia, número de passagens) Avaliação do tipo de *template* utilizado para o tratamento. Avaliar a satisfação dos doentes no pós-operatório precoce como forma de avaliar o alívio dos LUTS.

**Material e métodos:** Estudo observacional prospectivo de todos os doentes propostos para aquablação da próstata entre Novembro 2022 e de Julho 2023.



**Resultados:** Um total de 102 doentes foi avaliado. A idade dos doentes variou entre 48 e 93, média de 73 anos, o IMC médio foi 25.97 e a escala de CAPRINI 1.75. O volume prostático mais elevado foi de 280cc, e o menor de 25cc, para um volume médio de 84cc (54% e doentes com >80cc). O IPSS (*Internacional Prostate Symptoms Score*) médio foi 20.2 e o VASUS (*Visual Analogue Score for Urinary Symptoms*) foi 16.32. Da análise do planeamento do tratamento verificou-se que o comprimento médio foi de 42,32 mm (20 – 70mm), a profundidade dos pontos 1, 2, 3, 4 e 5 foi de 16.94, 16.47, 21.34, 21.13, 17.57, respectivamente, correspondendo a 36% com a forma de uma “rede suspensa” (*hammock*) e 54% com a “boca aberta” (*open-end*). O tempo médio de tratamento foi 36min, com tempo médio da primeira passagem de 3.30min e da segunda passagem 3.19min. O tempo médio de revisão da hemóstase foi 6.9min. A avaliação dos resultados ao fim de 1mês revelou um IPSS médio de 10.06 e VASUS total de 8.97. NA resposta ao SSQ8 (*Surgical Satisfaction Questionnaire-8*) obteve-se um grau de satisfação elevado (resultado final 19%), sendo que 84% respondeu com a classificação máxima à pergunta se repetiria a cirurgia (SSQ8-Q7) e 78% recomendaria a um conhecido com a classificação máxima (SSQ8-Q8).

**Discussão/Conclusões:** Os resultados obtidos sobre as características pré cirúrgica dos doentes demonstram a capacidade da técnica ser utilizada num intervalo grande de doentes. Desde idades precoces até idades muito avançadas, a rapidez da intervenção e o controlo hemorrágico contribuem para uma escolha segura. A satisfação dos doentes é sempre um objectivo importante, de maior importância em doenças benignas onde o foco é a resolução se sintomas. O facto de 89% dos doentes voltar a realizar o procedimento, e 92% recomendá-lo com a classificação mais elevada é interpretado pelos autores

como um sucesso da técnica desobstrutiva. Por último, este é, de acordo com o conhecimento dos autores, o primeiro trabalho em que se observa uma repetição nos padrões do planeamento do tratamento, destacando-se dois padrões mais prevalentes (*hammock* e *open-end*). No futuro será importante perceber se existem determinantes pré-cirúrgicos que condicionem estes padrões ou, por outro lado, resultados diferentes em cada caso. Em conclusão, a técnica de aquablação é uma opção eficaz, com tempos de cirurgia e internamento curtos e que condicionam um elevado grau de satisfação nos doentes. Sendo uma técnica nova existem múltiplos aspectos a merecer serem estudados, nomeadamente os relacionados com os *templates* de tratamento mais adequados.

## CT 57

### RETROPERITONEAL VERSUS TRANSPERITONEAL LAPAROSCOPIC PARTIAL NEPHRECTOMY: A DOUBLE-CENTER COMPARISON

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**Introduction/Objectives:** Laparoscopic partial nephrectomy can be done either with transperitoneal or retroperitoneal access with no clear benefit of one technique over the other. So, we aim to evaluate the perioperative outcomes of laparoscopic retroperitoneal partial nephrectomy (RPPN) when compared to laparoscopic transperitoneal partial nephrectomy (TPPN) in two experienced centers.

**Materials/Methods:** We conducted a retrospective observational double-center study including patients who underwent RPPN and TPPN. Statistical analysis was done using IBM®SPSS®, version 28.0.

**Results:** A total of 95 patients, 56 (58.9%) that performed RPPN and 39 (41.1%) that performed TPPN were compared. There were no statistical differences between gender prevalence ( $p=0.533$ ) and median age at surgery ( $p=0.292$ ). Charlson comorbidity index (CCI) was significantly higher in TPPN (60.5%,  $n=23$  for 4-6 and 15.8%,  $n=6$  for >6 vs 57.1%,  $n=32$  for 4-6 and 1.8%,  $n=1$  for >6,  $p=0.018$ ). Regarding tumor characteristics, in 69.2% ( $n=27$ ) of TPPN versus 39.3% ( $n=22$ ) in RPPN, an anterior tumor location was found, and in 30.8% ( $n=12$ ) versus 60.7% ( $n=34$ ), a posterior lesion was found ( $p=0.004$ ). Furthermore, in TPPN 48.7% ( $n=19$ ) of tumors were in the lower third, 28.2% ( $n=11$ ) in the middle, and 23.1% ( $n=9$ ) in the upper third compared with 33.9% ( $n=19$ ), 39.3% ( $n=22$ ) and 26.8% ( $n=15$ ), respectively, in RPPN, with no significant differences,  $p=0.334$ . The RENAL score was distributed as low (71.8%,  $n=28$ ) and moderate complexity (28.2%) for TPPN and low (60.7%,  $n=34$ ), moderate (30.4%,  $n=17$ ) and high complexity (8.9%,  $n=5$ ) for RPPN ( $p=0.166$ ). There were no significant differences in the prevalence of final T-stage histology between groups ( $p=0.151$ ). No significant differences were observed in the prevalence of conversion to open surgery ( $p=0.270$ ) and intraoperative complications ( $p>0.990$ ). Postoperative complications were also similar (7.7% in TPPN versus 7.1% in RPPN,  $p>0.990$ ). No significant differences were found regarding warm ischemia time (TPPN 16.0 vs RPPN 20.0 min,  $p=0.053$ ) and operative time (TPPN 130.0 vs RPPN 150.0 min,  $p=0.146$ ). Median hospital stay (days) was significantly higher in RPPN (5.0 versus 4.0  $p=0.003$ ). After adjusting to gender, CCI, tumor location, and RENAL score, the increased length of hospital stay was not significantly associated with the surgical technique, but it was significantly associated with the RENAL score (moderate complexity vs low complexity,  $\beta=1.37$ ,  $p=0.006$

and high complexity vs low complexity,  $\beta=4.62$ ,  $p<0.001$ ). Finally, the prevalence of positive surgical margins was also not significantly different (15.4%,  $n=6$  for TPPN and 21.7%,  $n=10$  for RPPN,  $p=0.581$ ).

**Conclusions:** None of these approaches proved to be superior when performed in experienced centers, reinforcing that the choice of technique should depend more on the surgeon's preference than on the patient's or tumor's characteristics.

## CT 58

### RESSEÇÃO TRANSURETRAL VESICAL EM CONTEXTO DE AMBULATÓRIO: FUTURO?

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*IPO Coimbra*

**Introdução:** Ressecção Transuretral Vesical, RTU-V, está indicada em pacientes com massas vesicais suspeitas, para fins diagnósticos e curativos.

Normalmente é feita em contexto de internamento, tendo o doente alta entre o primeiro e o segundo dia pós-operatório com sonda vesical, exceto se houverem intercorrências.

As complicações mais frequentes desta cirurgia são hematúria, retenção urinária aguda, infecção, entre outras.

**Objetivos:** O objetivo deste estudo é analisar todos os pacientes submetidos a RTU-V em regime de ambulatório na nossa instituição e avaliar a viabilidade deste procedimento neste contexto.

**Material e métodos:** Foi realizada uma análise retrospectiva de todos os pacientes submetidos ao RTU-V na instituição, utilizando o processo clínico eletrónico, focando a pesquisa no período pós-operatório e complicações associadas.

Posteriormente, os dados foram analisados, utilizando o programa SPSS.

**Resultados:** Desde a introdução desta cirurgia em regime de ambulatório, em 2021, foram realizadas trinta e seis RTU-V's, todas em doentes com massas vesicais suspeitas. A média de idades desta população foi  $65,99 \pm 10,57$  (anos), trinta e um do sexo masculino (86,11%) e vinte e seis destes pacientes tinham história de cancro da bexiga (72,22%).

Em 63,9% (23/36) das cirurgias apenas foi ressecada uma lesão, sendo o tamanho médio  $0,811 \pm 0,567$  (centímetros). Vinte e três pacientes (63,89%) fizeram instilação intravesical de Mitomicina C nas primeiras horas do pós-operatório.

Após avaliação histológica das peças cirúrgicas, oito tiveram diagnósticos benignos, sendo os restantes malignos. Neste último grupo, o estadio mais frequente foi pTaNxMx (20/38, 71,43%) e de baixo risco (19/28, 67,86%).

No pós-operatório imediato, um doente necessitou de internamento, tendo tido alta ao terceiro dia pós-operatório. Os restantes tiveram alta no dia da cirurgia. Onze doentes, 30,56%, tiveram alta com sonda vesical, sendo removida 3 a 5 dias após a cirurgia.

Um doente necessitou ser observado em contexto de urgência, devido a complicações associadas à cirurgia, e nenhum necessitou de internamento durante o seguimento.

Durante o seguimento, 8,33% (3/36) tiveram recidiva da doença, necessitando de reintervenção.

**Discussão/Conclusão:** RTU-V em contexto de ambulatório é um procedimento seguro, sem prejuízo para o paciente, seja em termos de complicações pós-operatórias ou de seguimento.

A introdução desta cirurgia em regime de ambulatório resulta em benefícios tanto para o paciente como para a instituição, uma vez que reduz a necessidade de internamento, sem necessariamente resultar em cuidados médicos extras no pós-ope-

ratório.

## CT 59

### PREDICTIVE FACTORS OF SUCCESS IN SPERM RETRIEVAL SURGICAL TECHNIQUES ANALYSIS OF A COHORT OF 62 PATIENTS.

*Carlos Toribio*

**Introduction:** Sperm retrieval surgical techniques (SRT) are the last treatment option in the infertile male. The management of expectations at the time of the indication of the procedure is fundamental, so predicting the success of the therapy could avoid unnecessary treatments. The aim of the present study is to explore the predictive value of a series of clinical and analytical factors on the success (sperm recovery) of TESE and PESA in patients with severe azoospermia or OAT.

**Material and methods:** The cohort of patients with azoospermia and severe OAT undergoing SRCT in our center was retrospectively analyzed. Clinical variables [age, DM, AHT, LD, smoking or other toxics, cryptorchidism, testicular volume, history of varicocele, trauma or previous infections and ultrasound findings], laboratory results [seminogram findings (pH, volume, count, active motility and normal forms), LH, FSH, Total Testosterone, Prolactin] and genetic [karyotype, cr. Y microdeletions, CFTR] were collected. From this data collection, a bivariate analysis was carried out and subsequently measured in terms of the number of patients.

**Results:** The study included 62 patients, cryopreservation was achieved in 31 (50%). Bivariate analysis determined that LH and FSH values were statistically significantly related to sperm recovery ( $p=0.001$  in both cases). Testicular volume, due to its clinical relevance and proximity to statistical significance ( $p=0.08$ ) was also added to the initial multivariate model.

Multivariate logistic regression revealed that only FSH value (OR=0.873, 95%CI

0.812-0.938,  $P < 0.001$ ) behaved as an independent predictor of ERCT success. The AUC, cutoff point, sensitivity and specificity of FSH for predicting success of the technique were 0.865, 19.1mIU/mL, 83.3% and 75%, respectively

**Conclusion:** After analysis of a wide range of clinical-analytical factors, in our sample, only FSH was identified as a predictor variable for success of ERCT.

## CT 60

### ANALYSIS OF OUR LEARNING CURVE WITH AQUABEAM® FOR THE TREATMENT OF PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA

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**Introduction and objectives:** Robotic prostatic hydroablation (AquaBeam®) is a novel technique for the surgical treatment of benign prostatic hyperplasia (BPH). The objective of this study is to present our experience, evaluating perioperative morbidity and postoperative efficacy of patients undergoing treatment with AquaBeam®.

**Material and methods:** A prospective analysis of a total of 101 patients undergoing surgery using AquaBeam® in our centre between February 2021 and Oct 2021 was carried out. The following parameters were analysed: surgical time, haemoglobin (Hb) loss, length of stay, variation in Q-max, PSA, International Prostate Symptoms Score (IPSS), sexual function measured by the International Index of Erectile Function-5 item (IIEF-5), presence of ejaculation and perioperative morbidity.

**Results:** The mean age of the patients was 69.9 (SD 8.5) years and 29.4% of them had an indwelling bladder catheter. The mean prostate size was 77.2 (SD 27.4) cubic centimetres. The median surgical time was 45

(IQR 40-57.5) minutes, Hb loss was 2.5 (IQR 1.8-3.2) g/dl and the median length of stay was 3 days (IQR 2.5-4). Preoperative and postoperative data are shown in Table 1. There were 33 Clavien-Dindo 2 complications (13 urinary tract infections, 13 acute urinary retention, and 8 haematuria) and 6 patients presented a Clavien-Dindo IIIB complication (1 rectal perforation and 5 reinterventions due to haematuria). There was 1 grade V complication due to pneumonia. Median follow up was 12 months (IQR 12-19)

The following table shows the variation of the pre- and postoperative variables (12 months):

**Conclusion:** Hydroablation surgery is an effective technique for patients with benign prostate hyperplasia. Studies with a longer follow up periods are required to evaluate long term results and to determine the most favourable preoperative characteristics to undergo this type of intervention.

## CT 61

### ANALYSIS OF RENAL TUMOR SIZE AS A PREDICTIVE FACTOR OF ONCOLOGIC AGGRESSIVENESS

*Maria Belen Alonso Bartolome*

**Introduction:** The risk of malignancy of renal masses correlates with tumor size, but we still lack specific and objective parameters to characterize the degree of aggressiveness of the same and to be able to guide treatment reliably. In this study we evaluated the incidence of aggressiveness characteristics as a function of tumor size.

**Material and methods:** Retrospective analysis of our series of renal masses surgically intervened in the period between 1998 and 2018. We studied the specific and cumulative incidence of aggressiveness characteristics of these lesions and their relationship with tumor size. Aggressiveness characteristics were considered: the presence of sarcomatoid or epidermoid differentiation, tumor necrosis, pT3-

4 stage, high histological grade (3-4) and the presence of aggressive histology variants.

**Results:** A total of 651 patients operated on for renal neoforations were analyzed. We found some characteristic of aggressiveness in 34.5% of the cases (n=270). The mean size of these tumors with some histological characteristic of aggressiveness was 6.6cm (RIQ 6.2-7.0). In the analysis of the correlation between tumor size and the appearance of any of the characteristics of aggressiveness, we found that necrosis, high grade (3 and 4) and aggressive T-category (pT3-4) appeared in more than 2 cm in diameter, and that necrosis, high grade (3 and 4) and aggressive T-category (pT3-4) appeared in more than 2 cm (n=2).. In tumors larger than 3 cm, these features appear in about 10%. Sarcomatoid differentiation and aggressive histologic grades appear in less than 5% of tumors below 7cm in diameter (Fig. 1). Above 2cm, the cumulative incidence increases by 2-3% for each feature with each centimeter increase in tumor size. We observed that with a median follow-up of 75.3 months (range 25-134), overall mortality was 24.6% (n=193) and cancer-specific mortality was 11.4% (n=89). In patients with at least one characteristic of aggressiveness cancer-specific mortality was 28%, while in the remaining patients it was 1.1% (p=0.03).

**Conclusions:** This analysis demonstrates that as the size of renal tumors increases, the incidence of renal tumor aggressiveness features increases. Less than 5% of tumors smaller than 2cm had some characteristic of aggressiveness. In patients with tumors below 2cm and with significant comorbidities, active surveillance may be a safe alternative.

## CT 62

### SAFETY AND TOLERABILITY PROFILE OF APALUTAMIDE IN THE TREATMENT OF HORMONE-SENSITIVE AND CASTRATION-RESISTANT PROSTATE CANCER MO RESULTS IN REAL CLINICAL PRACTICE IN OUR CENTER

*Carlos Toribio*

**Introduction:** Apalutamide is a selective oral androgen receptor inhibitor approved for the treatment of high-risk metastatic hormone-sensitive (mHSPC) and castration-resistant prostate cancer MO (CRPCM0), with a favorable safety profile in pivotal clinical trials. We present the results regarding toxicity and safety profile in routine clinical practice in patients treated with Apalutamide in our center.

**Material and Methods:** Single-center retrospective observational study including patients with CPHSm and CPRCM0 treated with Apalutamide in our hospital until December 2022. Adverse effects (AEs) related to the drug, need for dose reduction or discontinuation due to toxicity were collected. We performed a univariate descriptive analysis using SPSS 23.

**Results:** 64 patients treated with Apalutamide were included. 59 (92.19%) were CPHSm and 5 (7.81%) CPRCM0. The mean overall age was 74 years and the median follow-up was 8 months in the CPHSm group and 13 months in the CPRCM0 group. During treatment, 25 patients (39%) presented some AE related to the drug. The AEs ordered by frequency were: fatigue in 24 (37.5%) patients, hot flushes in 13 (20.31%), rash in 8 (12.5%), gastrointestinal symptoms in 7 (10.9%), falls in 5 (7.81%), hypertension and fractures in 4 (6.25%) and hypothyroidism in 6 patients (3 clinical 4.68% and 3 subclinical 4.68%). No cardiac AEs, neurotoxicity, AVCA or seizures were recorded. As a consequence of toxicity, 4 (6.25%) patients required dose reduction, all due to skin rash, 1 of them temporarily discontinued the med-

ication and 3 patients definitively. As a consequence of the rash, 2 other patients directly and definitively discontinued the medication. The remaining 2 temporary discontinuations were caused by arthralgias and an episode of intercurrent infected lymphocele and the other 2 definitive discontinuations were caused by hypothyroidism and fatigue. In total there were 4 dose reductions, 5 temporary suspensions and 4 definitive suspensions.

The median time to termination of treatment due to toxicity was 4 months.

No treatment-related deaths were reported.

**Conclusions:** Apalutamide in routine clinical practice appears to maintain a safety profile similar to that reported in pivotal clinical trials and previous literature, with fatigue being the most frequent AE's and rash causing the majority of treatment discontinuations.

### CT 63

#### COMPARING THE USE OF AQUABEAM AND HOLEP

*Maria Belen Alonso Bartolome*

**Introduction and objectives:** Robotic prostatic hydroablation (AquaBeam®) is a novel technique for the surgical treatment of benign prostatic hyperplasia (BPH). The objective of this study is to compare perioperative morbidity and treatment efficacy of prostatic hydroablation and Holmium laser prostate enucleation (HoLEP).

**Materials y methods:** A total of 202 patients were analysed (101 by AquaBeam® and 101 by HoLEP) were analysed. A propensity score matching system was generated to obtain comparable cases from the HoLEP database at our institution. Patients included for analysis had undergone surgery in our department from April 2016 to October 2021. The following parameters were analysed: surgical time, haemoglobin (Hb) loss, length of stay, variation in Q

-max, PSA, International Prostate Symptoms Score (IPSS), change in IPSS and in IPSS QoL, sexual function measured by the International Index of Erectile Function-5 item (IIEF-5), presence of ejaculation and perioperative morbidity. Median follow up was 12 months (IQR 12-36).

**Results:** Preoperative parameters were comparable between both groups (including prostate size,  $p=0.548$ ). The perioperative and follow-up variables are shown in the following Table.

No major differences in intraoperative complications were observed between both groups. With regards to postoperative complications, 17.3% vs 20.5% presented early urinary incontinence (AquaBeam® vs. HoLEP;  $p=0.62$ ). 5 patients in the AquaBeam® group and 1 patient treated with HoLEP required blood transfusion ( $p=0.02$ ). 2 patients treated with HoLEP and 5 with AquaBeam® required reoperation due to haematuria ( $p=0.03$ ). 1 rectal perforation occurred and 1 patient died after a pneumonic process in the AquaBeam® group.

**Conclusion:** Hydroablation surgery is an effective technique for patients with benign prostatic hyperplasia. It offers good functional results whilst allowing the preservation of ejaculation. AquaBeam® presents a longer hospital admission mainly due to haematuria. The data presented compare our initial experience and learning curve with AquaBeam® with a well-established HoLEP technique in our department. Therefore, it must be regarded as preliminary.

## CT 64

### DE NOVO CARDIOVASCULAR EVENTS IN PATIENTS AFTER SURGICAL TREATMENT OF RENAL TUMORS RADICAL NEPHRECTOMY VERSUS PARTIAL NEPHRECTOMY

*Carlos Toribio*

**Introduction:** Partial nephrectomy has shown equivalent oncologic control to radical nephrectomy for the treatment of renal tumours. Both surgical options may be considered for tumours up to 4cm in diameter. In recent years, comparison between both approaches has focused on the sequelae that can occur, with special emphasis on the occurrence of cardiovascular events (CVE) and mortality associated it. This paper analyses the appearance of de novo CVE and mortality associated in patients undergoing renal tumour surgery (radical nephrectomy-partial nephrectomy) between 1995-2015.

**Material and methods:** Retrospective study of our series of radical nephrectomies and partial nephrectomies performed for renal tumours between 1998-2015, in patients without a history of CVE. We analysed the appearance of de novo CVE and mortality associated, considering personal risk factor history.

**Results:** A total of 576 patients underwent renal surgery, 66.8% radical nephrectomies and 33.2% partial nephrectomies. The average follow-up was 79.5 months. The global CVE rate was 4.6%. The mortality rate of de novo CVE was 3.8%. De novo CVE were in 4.4% of radical nephrectomies and 5.2% after partial nephrectomies (p 0.67). Mortality analysis by event, did not find statistically significant differences between both techniques (3.4% vs 3.2% p 0.543).

**Conclusions:** In our series, the mortality rate and de novo cardiovascular events, are similar between these two surgical approaches.

**Key words:** Radical nephrectomy, Partial

nephrectomy, Mortality rate and Cardiovascular events (CVE)



## Comunicações Orais

### CO 01

#### GLOBAL VARIATION IN EARLY RECURRENCE AFTER TURBT SURGERY IN THE RESECT STUDY: INTER-SITE VARIATION IS INDEPENDENT OF DIFFERENCES IN TUMOUR FACTORS.

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**Aim:** To determine if there is significant variation in early recurrence (first check cystoscopy) after transurethral resection (TURBT) surgery between sites taking part in the RESECT study (NCT05154084) after accounting for tumour characteristics.

**Methods:** An international, multi-centre, observational study. A mixed effects logistic regression model with tumour size, tumour number, tumour grade, tumour stage as fixed effects and site as a random effect was fitted. Cases with first, presumed non-muscle invasive bladder cancer (NMIBC) undergoing TURBT were included. Cases were excluded if first check follow up had not been completed. Sites were excluded if they did not have at least 10 cases with first check follow up. Local and/or national approvals or ethical exemptions were obtained prior to commencing the study at participating sites.

**Results:** After exclusions, 186 sites (UK: 80; Europe: 59; North America: 18; Asia: 17; Africa 7; South America: 3; Oceania: 2), contributing a total 4597 cases (average 25 cases) were included. Median recurrence rate per site was 12% (IQR 0-22) for low grade tumours and 27% (IQR 13-42) for high grade tumours (figure 1). After controlling for tumour size, number, stage and grade (all significantly and independently associated with early recurrence) (Table 1) there was significant residual variation attributable to site ( $p < 0.0001$ , intra-class correlation, 0.1). Adjustment for sites improved the regression model from an area under the receiver operating characteristic curve of 0.66 to 0.74.

**Conclusion:** There is significant variation in the early recurrence rate of NMIBC after TURBT surgery between sites that could not be explained by currently understood tumour features. This may be related to site-specific surgical technique or perioperative practice. Further investigation is warranted to understand the influence of these factors.

### CO 02

#### ANALYSIS OF URINARY TRACT CANCER PREVALENCE IN THE SPANISH COHORT OF THE IDENTIFY STUDY.

*Carlos Toribio*

**Introduction and objectives:** Urinary tract tumors are associated with high morbidity and mortality, with their prevalence varying globally. IDENTIFY is the largest study of hematuria in specialized care to date.



This study analyzes the prevalence of different urinary tract cancers in the Spanish cohort of the IDENTIFY study.

**Material and methods:** The IDENTIFY study analyzed an international multi-center prospective cohort of patients with suspected urinary tract tumor. A review of the cohort data of patients recruited in Spanish centers from the IDENTIFY study was performed. Patient demographics, complementary tests, and diagnostic data were collected between December 2017 and December 2018.

**Results:** A total of 706 patients, from 9 Spanish centers were analyzed. A total of 77.8% were men with a mean age of 67 years, 91.6% were white, 27.2% were non-smokers and 8.4% had a BMI $\geq$ 30. The reason for referral was macroscopic hematuria in 83.7% of cases. The overall prevalence of cancer in patients with hematuria-macroscopic hematuria was 39.6% (218 bladder cancers (TV)(37%), 9 upper urinary tract (CTUS)(1.4%) and 8 renal (1.2%)). While in the hematuria-microscopic group it was 20.8% (13 TV(18%), 1 CTUS (1.4%) and 1 renal (1.4%).

The following table shows the incidence of stage at diagnosis for all bladder cancers: (anexo)

In the multivariate analysis, macroscopic hematuria OR2.19(1.13-4.24)(p=0.02) and smoking history (smoker2.36(1.40-3.95) (p=0.001) and ex-smoker(2.11(1.30 - 3.40) (p=0.002) were associated with detection of bladder cancer. Cancer type, sex and variation according to center showed no statistical association.

**Conclusions:** The Spanish cohort of the IDENTIFY study demonstrates that smoking and the presence of macroscopic hematuria are associated with the detection of bladder cancer. Studies such as this one allow us to know the contemporary cancer detection rates in our population, improving our decision making and optimizing cancer detection.

## CO 03

### MEIOS ATIVADOS POR PLASMA: NOVOS AGENTES TERAPÊUTICOS INTRA-VESICAIS PARA O TRATAMENTO DO CANCRO DA BEXIGA?

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**Introdução:** O cancro da bexiga é o 10.<sup>o</sup> com maior incidência e o 13.<sup>o</sup> com maior mortalidade em todo o mundo e as projeções da OMS antecipam um aumento significativo até 2040, tornando-se premente o desenvolvimento de novas terapias. O plasma, um gás parcialmente ionizado, tem sido estudado e empregue com vários fins no campo biomédico.

Estudos com plasma frio atmosférico (PFA) demonstraram o seu efeito antitumoral contra várias neoplasias. O principal mecanismo subjacente a esta propriedade é a produção de espécies radicais de oxigénio e nitrogénio (RONS) que permitem induzir um estado de stress oxidativo nas células tumorais, mantendo a seletividade do tratamento. Este pode ser aplicado direta ou indiretamente em células e tecidos, através de um meio de base aquosa ativado por plasma frio atmosférico (MAPFA).

O ressectoscópio cirúrgico bipolar usado aquando da resseção transuretral (RTU) é uma fonte de plasma térmico (PT) que exerce o seu efeito na solução salina usada para irrigação da bexiga (NaCl 0,9%) e a transforma num meio ativado por plasma térmico (MAPT) que contacta com a parede vesical, embora de forma breve e diluída.

**Objetivos:** Avaliar os efeitos biológicos dos MAPT e compará-los com os MAPFA, quer na sua composição, quer nos seus efeitos biológicos.

**Material e métodos:** O grupo de investiga-

ção desenvolveu um dispositivo eletrónico capaz de produzir PFA e o PT foi produzido com recurso a um ressectoscópio cirúrgico bipolar. A solução salina de NaCl 0,9% foi exposta ao PFA e ao PT por curtos períodos de 30, 60, 120 e 180 segundos, formando MAPFA e MAPT, respetivamente. Para avaliar a quantidade de RONS em cada amostra de NaCl 0,9% ativada por plasma, foi utilizado o ensaio OxiSelect?? In Vitro RONS Assay Kit.

Duas linhas celulares de cancro da bexiga, HT-1376 (grau III) e TCCSUP (grau IV) foram tratadas com MAPFA e MAPT. 24 horas após o tratamento foram realizados os ensaios de MTT e SRB para avaliar o impacto destes na atividade metabólica e conteúdo proteico, respetivamente.

**Resultados:** Todos os tempos de exposição originaram um aumento significativo na atividade de RONS nas amostras face a NaCl 0,9% não exposto a PFA ou PT. Adicionalmente, os resultados evidenciam o efeito anti-proliferativo do MAPFA e do MAPT e sua dependência do tempo de irradiação, tendo sido observada uma diminuição da atividade metabólica e do conteúdo proteico.

O MAPFA apresentou um efeito antitumoral mais acentuado na linha celular de grau mais avançado (TCCSUP), enquanto o MAPT condicionou um efeito semelhante entre as duas linhas celulares. Para que se observe um efeito biológico equivalente, revelou-se necessária a exposição do MAPFA a períodos superiores aos do MAPT.

**Conclusão:** Os resultados obtidos reforçam a eficácia e o potencial antitumoral dos meios activados com plasma. Comprova-se assim que, actualmente, já há produção local de MAPT no âmbito da RTU, o que constitui um forte indício da segurança desta terapia. Serão necessários mais estudos para perceber o que este contacto local significa actualmente se tal poderá ser usado no futuro para o tratamento dos tumores vesicais. Contudo, este estu-

do constitui alicerces para aprofundar o conhecimento com vista à sua introdução como uma nova abordagem terapêutica, como agente adjuvante intravesical para o cancro da bexiga.

#### CO 04

### THE IMPACT OF SURGEON EXPERIENCE ON BLADDER CANCER RESECTION: A PROSPECTIVE STUDY

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**Introduction:** Transurethral resection of bladder tumour (TURBT) is crucial in the treatment of bladder tumours, which should be as complete as possible with detrusor muscle involved and when incorrectly performed can cause staging mistakes and increases the recurrence risk. To avoid these errors, a second resection is recommended in selected cases.

**Objectives:** The aim of this study is to evaluate the surgeon's ability to predict histologically complete primary resection of newly diagnosed bladder tumour avoiding the need for a second TURBT.

**Material e methods:** This is a prospective, observational, and single-centre study involving 47 consecutive patients with newly diagnosed bladder tumour who had previously undergone primary TURBT, and met European Association of Urology criteria for second-look TURBT. Second-look TURBT specimens were analysed for routine histological assessment and compared with the surgeon's impression of the tumour at initial resection. The ethics committee has been accepted by our institutional Center of Studies and Scientific Research.

**Results:** From September 2018 until December 2019, ninety-one patients were submitted to primary TURBT. Forty-seven (51.6 %) had an indication for second look TURBT. Of those, 35 (77.8 %) of the

patients had a surgical report of complete macroscopic resection. In the second look at specimens, the residual disease was found in 20.9 % and 3 patients changed their pathological stage, with upstaging disease. The sensitivity and specificity of the resident group to detect disease in the second look TURBT regarding muscle invasion was 56% and 75%, correspondingly. Sensitivity and specificity for the senior group were 27% and 85%, respectively.

**Discussion/Conclusions:** The absence of detrusor muscle, the resulting residual disease, and errors in staging emphasizes the importance of performing TURBT carefully, methodically, and correctly. The surgeon's eyes cannot replace second-look TURBT because its ability to predict residual disease at resection is poor. Second-look TURBT is crucial in the treatment of bladder cancer and cannot be replaced by a surgeon's opinion, so international recommendations should be followed. Supervision of less experienced surgeons is a cornerstone.

## CO 05

### **SURGERY FOR ADRENAL METASTASIS: SURGICAL OUTCOMES AND PROGNOSTIC FACTORS FOR LONG-TERM SURVIVAL.**

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**Objective:** Assessment of the surgical outcomes and determination of prognostic factors for long-term survival of patients who underwent surgical treatment of an adrenal metastasis.

**Methods:** A multicentric retrospective study has been performed. There have been collected all patients who underwent adrenalectomy (due to adrenal metastasis)

in 2 hospitals between 2005 and 2021. Clinical data associated to surgical complications and survival during follow-up were analyzed.

**Results:** 33 patients were included. Laparoscopic adrenalectomy was performed in 22 patients and open surgery in 6 of them. The most common primary tumor was lung (n=15), followed by kidney (n=7). The majority of patients had metachronous lesions (n=28). The mean metastasis size was 3.5 cm. The progression-free survival and cancer-specific survival were 7.5 months (range 1-64) and 22.5 months (6-120), respectively. Survival rates at 1, 2, 3 and 5 years were 94%, 65%, 48%, and 29%, respectively. The only factor associated to a higher mortality was lung origin of the metastasis. Survival was significantly lower in patients with lung cancer compared to other primary tumors (expected events: 11.0% vs. 5.0%,  $\chi^2_{21} = 8.01$ ,  $P = 0.005$ ).

**Conclusions:** Adrenalectomy for unique adrenal metastases may be a favorable option in terms of survival for selected patients with specific tumor characteristics.

## CO 06

### **IMPACTO DA QUIMIOTERAPIA NEOADJUVANTE NOS OUTCOMES PERI-OPERATÓRIOS DE DOENTES COM MIBC SUBMETIDOS A CISTECTOMIA RADICAL**

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**Introdução:** A quimioterapia neoadjuvante demonstrou em vários estudos benefícios em termos de sobrevida e *outcomes* oncológicos em doentes com neoplasia musculoinvasiva da bexiga. Existem, no entanto, poucos dados relativos ao impacto da realização de quimioterapia neoadjuvante ao nível dos *outcomes* intra e peri-operatórios em doentes submetidos a cistectomia radical.

**Objetivos:** Avaliar o impacto da quimio-

terapia neoadjuvante nos *outcomes* peri-operatórios em doentes submetidos a cistectomia radical.

**Materiais e métodos:** Foi efetuada uma análise retrospectiva de doentes submetidos a cistectomia radical com intuito curativo entre Janeiro/2015 e Junho/2023. Foram recolhidos dados relativos à idade, sexo, estadiamento clínico, estratégia de tratamento, técnica cirúrgica, tempo de cirurgia, perdas sanguíneas intra-operatórias, necessidade transfusional, tempo de internamento, complicações pós-operatórias, taxa de re-internamento e positividade de margens cirúrgicas. Foi efetuada regressão logística univariável e multivariável para as variáveis de interesse. Foi considerado o valor de  $p < 0.05$  como resultado estatisticamente significativo.

**Resultados:** Foram incluídos um total de 63 doentes. 31 (49,2%) doentes realizaram quimioterapia neoadjuvante (QTNA). Nos doentes submetidos a QTNA observou-se idade inferior ( $p=0.003$ ), maior extensão tumoral extravesical (cT3-4) ( $p=0.057$ ) e maior percentagem de derivação urinária continente ( $p=0.006$ ). Estes doentes apresentaram ainda tempos cirúrgicos superiores (343.6 vs. 303.2 minutos,  $p=0.014$ ). Não se observaram diferenças significativas a nível de perdas sanguíneas intra-operatórias ou necessidade transfusional peri-operatória ( $p=0.711$  e  $p=0.862$ , respetivamente). A presença de margens cirúrgicas positivas e a ocorrência de complicações pós-operatórias, tanto totais como *Clavien Dindo*  $\geq 3$ , foi inferior no subgrupo de QTNA (3.2%, vs. 22.6%  $p=0.023$ ; 0.97 vs. 1.16 eventos/doente,  $p=0.398$ ; 0.19 vs. 0.38 eventos/doente,  $p=0.215$ , respetivamente). Não se observaram diferenças relativas ao tempo de internamento ou re-internamento entre ambos os grupos ( $p=0.550$  e  $p=0.368$ , respetivamente). Foi efetuada uma análise de regressão logística univariável e multivariável. A análise univariável demonstrou relação significati-

va entre estratégia de derivação e tempo cirúrgico ( $p=0.05$ ), necessidade transfusional, extensão extravesical e re-internamento ( $p=0.035$  e  $p=0.049$ , respetivamente), e não-realização de neoadjuvância e positividade de margens cirúrgicas ( $p=0.049$ ). Na análise multivariável, ajustando os resultados para idade, sexo, estratégia de derivação, presença de extensão extravesical e realização de neoadjuvância, observou-se relação significativa entre necessidade transfusional e extensão tumoral extravesical (*OR* 3.92,  $p=0.043$ ), tempo de internamento e utilização de estratégia de derivação urinária continente (*OR* 7.81,  $p=0.022$ ), e não-realização de neoadjuvância e positividade de margens cirúrgicas (*OR* 11.5,  $p=0.044$ ). Nesta mesma análise não se observaram relações significativas entre a realização de QTNA e os restantes *outcomes* avaliados.

**Discussão/conclusões:** A realização de quimioterapia neoadjuvante não demonstrou ter impacto negativo a nível dos *outcomes* avaliados (tempo cirúrgico, perdas sanguíneas intra-operatórias, necessidade transfusional, complicações pós-operatórias, dias de internamento ou taxa de re-internamento), tendo, por outro lado, demonstrado associar-se a uma redução significativa do risco de positividade de margens cirúrgicas.

## CO 07

### VARIATION IN GLOBAL TRANSURETHRAL RESECTION OF BLADDER TUMOUR PRACTICE: EARLY RESULTS FROM THE RESECT STUDY

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**Introduction:** The aim of this study was to describe differences in hospital-level TURBT practice across the world.

**Patients & Methods:** The RESECT study (transurethral REsection and Single-instillation intravesical chemotherapy Evaluation (SI-IVC) in bladder Cancer Treatment) is an international observational study. In the first phase of the study, lead collaborators at registered hospitals were asked to complete a web-based questionnaire about usual practice at their hospital.

**Results:** The survey was completed in 182 hospitals from 40 countries. The median number of urologists routinely performing TURBT per hospital was 6.5 (25th, 75th: 4-9). The median number of weekly TURBTs performed for “first” bladder tumours, per hospital was 3 (25th, 75th: 2-5). In all, 58/179 (32.4%) hospitals utilised dedicated TURBT surgical lists.

Given the option of “usually” “sometimes” or “never”, 78/176 (44.3%) usually used bipolar, and 106/176 (60.2%) monopolar, resecting loop for TURBT. 38/176 (22%) hospitals used holmium and 9/176 (5.1%) used thulium laser “usually” or “sometimes”. Fractionated resection was performed “usually” in most hospitals (118/176 (67%)), whilst 20/176 (11.4%) “usually” performed en-bloc resection. Photodynamic Diagnosis assisted resec-

tion and narrow band imaging were used for first tumour resections in 36/176 (20.5%) and 45/176 (25.6%) respectively. Some regional trends were observed, examples of these are summarised in table 1.

**Conclusions:** There is observed variation in the organisation of services, technical performance and audit systems related to TURBT surgery across the world. It is not known how these differences impact outcomes, and this will be explored in the next phase of the RESECT study.

## CO 08

### NON-INVASIVE FOLLOW-UP OF URINARY TRACT CANCER: A PROTOCOL FOR A PROOF-OF-CONCEPT STUDY

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**Introduction and Aims:** Bladder cancer is the most common malignancy of the urinary tract with the highest lifetime treatment costs per patient of all cancers. This is justified by the intensive follow-up after surgery, that requires invasive procedures, such as cystoscopy. As an alternative, an electronic nose (e-nose) technology using innovative gas sensing materials is being developed as non-invasive strategy. E-noses are devices composed by an array of chemical sensors that, in presence of volatile molecules, generate distinct response signals which are used to train machine learning models. With this, the models learn to identify samples with different odors. This study aims to test the use of the e-nose technology to analyze the odor patterns of patients’ urine as a follow-up option for patients with non-muscle-inva-

sive bladder cancer (NMIBC) after surgery.

**Methods:** This will be a proof-of-concept study to test the e-nose technology. We aim to include 200 patients which will be identified from the waiting lists for cystoscopy, using an opportunistic approach. Patients with positive uroculture will be excluded. As part of normal practice, patients collect an urine sample before the cystoscopy that will be used to test the e-nose technology. The urine samples will be analyzed in optical and electrical e-nose prototype versions. The optical and electrical signals generated by the sensors will be collected and analyzed, namely by extracting features from the signals and using them as input of machine learning tools. This will allow to train machine learning models to identify patterns of features representative of each sample type and correctly classify them.

Patients will be grouped and analyzed according to four pre-specified groups: one control group, one pre-surgical group and two post-surgical groups, each with 50 subjects. The control group (CG) will include patients with normal bladder ultrasound; the pre-surgery patient group (PreS) will include patients with a primary diagnosis of bladder cancer confirmed by cystoscopy; the post-surgery patient group 1 (PoS1) will include patients with NMIBC in follow-up after TURB, with negative cystoscopy; and the post-surgery patient group 2 (PoS2) will include patients with NMIBC in follow-up after TURB, with positive cystoscopy. The primary outcome will be the sensitivity and specificity of the e-nose technology to classify the urine samples as PoS1 and PoS2. The secondary outcomes will evaluate the same performance indicators for the normal (CG) and PoS1 groups. At least 2 centers, within the contact network nationally established, will be included in this study.

**Dissemination and ethics:** The protocol will be disseminated to the participating

centers and ethics approval will be sought at each site. The study is funded by the European Research Council (ERC) under the EU Horizon 2020 research and innovation programme (Grant Agreement no. 101069405 – ENSURE-ERC-2022-POC1).

**CO 09**

### **RE-TUR IN T1G3 UROTHELIAL BLADDER CARCINOMA SHOULD WE PERFORM IT**

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**Introduction and objectives:** After transurethral resection (TUR) of T1G3 tumors, residual disease has been observed in 70% of cases and up to 20-30% are understaged<sup>1</sup>. T2 diagnosis after performing Re-TUR is between 4-25%<sup>2</sup>. To minimize this risk, the EAU Guidelines recommends performing a new TUR (Re-TUR) 2-6 weeks after surgery. This study analyzes the rate of residual disease and understaging in T1G3 and rate of recurrence and progression to muscle-invasive or metastatic disease in our center.

**Materials and methods:** A retrospective analysis of 106 patients diagnosed with T1G3 at Hospital Universitario La Paz (Madrid) between January 2016 to December 2019. Demographic and clinicopathological data such as, method of diagnosis, history of bladder tumor, preoperative cytology, visual characteristics (papillary vs. solid), size, multiplicity, presence of muscular layer in the first TUR, tumor histology type, presence of CIS, time till re-TUR and the presence of residual macroscopic tumor were recorded.

**Results:** Re-TUR was performed in 73 patients (68.9%) with a median time of 8.7 weeks (+/- 3.2). Muscle layer was pres-

ent in 81.1% of all initial TURs. Patients without re-resection were older (71 vs 78 years,  $p=0.002$ ) and in 90.6% of these cases muscle layer was present in the initial RTU histopathological analysis (90.6% vs 76.7%,  $p=0.067$ ). No differences in cytology, tumor appearance, multiple or primary tumor and associated CIS, were found between the age groups. Macroscopic residual tumor was found in 34.2% (25 patients) and in 8 patients (11%) only carcinoma in situ was found in the resection bed. Forty patients (55%) were free of residual disease. Absence of muscle layer was not associated to residual tumor in Re-TUR ( $p=0.51$ ). T1 was diagnosed in 27% of Re-TUR ( $n=20$ ) and muscle-invasive disease in 4.1% ( $n=3$ ). Median follow-up of the whole cohort was 16 months (8-39). In total, 28.3% (30 patients) recurred and 16% (17 patients) progressed. No difference was found between those who underwent Re-TUR or not.

**Discussion:** There is great controversy as to whether or not Re-TUR should be performed. Re-TUR improves accuracy in tumor staging and eliminates residual disease improving prognosis. Percentage of cases reclassified to muscle-invasive is low. Our study found a lower percentage of both T1 residual disease and T2 tumor diagnosis with regards to previous reviews<sup>3</sup>. No factor acted as a predictor of residual tumor tissue or progression. No differences in oncologic evolution between those who underwent or did not undergo re-resection was observed.

**Conclusion:** Despite finding encouraging results in our study, the number of residual T1-T2 tumor (27%) is not negligible given the aggressiveness of invasive bladder cancer. We therefore believe it is advisable to continue to perform Re-TUR in all patients diagnosed with T1G3 bladder carcinoma.

**Keywords:** Bladder carcinoma, Re-TUR, understaging.

References:

1. Kulkarni GS, Hakenberg OW, Gschwend JE, Thalmann G, Kassouf W, Kamat A, Zlotta A. An updated critical analysis of the treatment strategy for newly diagnosed high-grade T1 (previously T1G3) bladder cancer. *Eur Urol.* 2010 Jan;571:60-70. doi: 10.1016/j.euro.2009.08.024. Epub 2009 Sep 1. PMID: 19740595.
2. Witlox, W.J.A., et al. An inverse association between the Mediterranean diet and bladder cancer risk: a pooled analysis of 13 cohort studies. *Eur J Nutr*, 2019 [prior to print].
3. J.M. Gaya, J. Palou, M. Cosentino, D. Patiño, O. Rodríguez-Faba y H. Villavicencio. La re-resección transuretral puede no ser necesaria en todos los tumores vesicales no músculo-invasivos de alto grado. *Actas Urol Esp.* 2012;369:539-544

## CO 10

### PREVENTION OF NON – MUSCLE – INVASIVE BLADDER CARCINOMA RECURRENT WITH IMMEDIATE PREOPERATIVE INSTILLATION OF CHEMOTHERAPY – PRECAVE CUETO 1802 TRIAL

Carlos Toribio

**Introduction & Objectives:** The use of an immediate postoperative instillation of chemotherapy after TURBT in patients with small low grade non-muscle-invasive bladder cancer (NMIBC) reduces recurrences. Bladder perforation or logistic issues avoid its administration in an important percentage of cases. In this study we evaluate if an immediate neoadjuvant instillation of chemotherapy (INAIC) could be helpful in reducing recurrences of NMIBC.

**Materials & Methods:** We developed an ethical board approved, phase 4, prospective, randomized, controlled, clinical trial. Patients with a clinical diagnosis of non-muscle invasive bladder tumour were randomly assigned to receive TURBT alone or INAIC with Mitomycin C (40mg/40ml) for 15 minutes before TURBT. Additional

adjuvant intravesical chemotherapy instillations were administered following the EAU guidelines.

**Results:** The study started in May 2018 and 240 patients have been included. 212 have at least 12 months of follow up. 166 patients fulfilled the inclusion criteria and were analyzed. No differences were observed between groups in age, gender, smoking history, Charlson comorbidity index (CCI), BMI, history of previous low-risk NMIBC, urine cytology, number of tumors in cystoscopy. After a median follow up of 24 months recurrence was observed in 17 patients (27.4%) in the TURBT alone group, and in 11 (16.7%) in the INAIQ group ( $p=0.141$ ). No difference was observed in subgroup analysis between Ta and T1 tumors ( $p = 0.238$ ). However, patients not receiving adjuvant intravesical chemotherapy had a lower recurrence rate.

**Conclusions:** The preliminary analysis of this trial suggests that INAIQ can reduce the risk of NMIBC recurrence in low-risk patients not receiving adjuvant therapy, and could be eventually considered as an alternative of a single postoperative instillation. A larger number of patients will be included in the trial to evaluate the real value of INAIQ in different patient subgroups.

## CO 11

### GLOBAL VARIATION IN QUALITY OF TRANSURETHRAL RESECTION OF BLADDER SURGERY, RESULTS FROM THE RESECT STUDY.

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**Introduction:** RESECT is an international multicentre observational study of transurethral resection of bladder tumour (TURBT) surgery. TURBT practice has been shown to be associated with oncological outcomes. The aim of this analysis was to measure the global achievement of 4 TURBT quality indicators (QI) and determine if there is need for improvement.

**Methods:** Patients included were consecutive, primary (first) tumour TURBT cases undertaken with curative intent. QIs and eligibility criteria were set a priori with consensus from an expert panel and investigators were blinded to this. These were: Detrusor muscle sampled (QI1-DM+) (eligible: tumours >5mm); Single instillation intravesical chemotherapy given within 24 hours (QI2-SIIVC) (eligible: all cases unless patient allergic or SI-IVC is not available); The completeness of resection is documented (QI3-ResDoc) (eligible: all); All of tumour number, size and location are documented (QI4-TumDoc) (eligible: all). To assess if variation was similar within the largest country in the study (UK, N=69) vs internationally, we displayed performance achievement variation, graphically, in the UK and non-UK (N=49) sites.

**Results:** 3193 patients undergoing TURBT from 175 sites in 40 countries were includ-



ed. The achievement of each of the TURBT quality indicators had wide variation between sites both within and between countries (Figure 1). All 4 QI's varied from <10% achievement to 100% achievement across sites. Median (25th, 75th) achievement rate across sites with > 10 cases for each QI was: QI1-DM+: 75% (59.5-85.0); QI2-SIIVC24: 41.7% (19.0-64.6); QI3-ResDoc: 80.0% (57.5-91.9); QI4-TumDoc: 68.4% (50.0-80.6). There was low grade pathology in 134/537 (24.9%) cases where the surgeon did not request SI-IVC because of belief it was not indicated, and in 187/468 (40.0%) cases where the surgeon did not request SI-IVC without a documented reason. These cases may have benefited from SI-IVC treatment (level 1a evidence).

**Conclusion:** There is significant variation in the achievement of four key TURBT QI within countries and internationally with significant room for improvement. Phase 2 of the RESECT study will randomise sites to targeted feedback or not, to investigate if it is possible to improve this performance and reduce recurrence rates.

## CO 12

### CONTINENT CUTANEOUS URINARY DIVERSIONS: LONG-TERM FOLLOW-UP OF LAPAROSCOPIC MITROFANOFF AND YANG-MONTICATHERIZABLE CHANNELS

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**Introduction:** Continent cutaneous derivation (CCUD) is a useful treatment strategy for neurogenic lower urinary tract dysfunction (NLUTD) patients who are unable to perform clean intermittent catheterization (CIC). Mitrofanoff appendicovesicostomy or Yang-Monti ileovesicostomy are surgical techniques which allow the use of the ap-

pendix or a transverse ileal tube, respectively, as alternate conduits to bypass the native urethra for CIC. While the former is the most frequently performed CCUD, the latter is an alternate procedure when the appendix is unavailable or unsuitable. These techniques aim to restore an adequate bladder emptying with long-term continence and, therefore, prevent future renal function deterioration, decrease urinary tract infections, and improve quality of life.

**Objectives:** We pretend to report our experience with laparoscopic appendico and ileovesicotomies in adult patients with NLUTD.

**Materials and methods:** We retrospectively review all patients submitted to CCUD, either Mitrofanoff or Yang-Monti procedure, in a single institution from January 2014 to March 2023. All surgeries were performed laparoscopically by one experienced surgeon. Data collected included demographics and baseline characteristics; surgical procedure details; early post-operative results and complications and long-term outcomes in terms of urinary continence, ability to catheterize the stoma, renal function, late complications and global satisfaction rate.

**Results:** A total of 12 patients underwent CCUD over a 9 years period. A Mitrofanoff appendicovesicostomy was performed in 8 patients, while Yang-Monti ileovesicostomy was completed in 4 patients. Augmentation enterocystoplasty was required in 3 patients due to low bladder compliance. Mean age at the time of surgery was  $49.92 \pm 0.64$  years-old, female to male ratio was 2:1. Concerning the aetiology of NLUTD, 8 were due to traumatic spinal cord injury, 2 multiple sclerosis, 1 myelomeningocele and 1 medullary ischemia. Six patients were tetraplegic (50%). Mean operative time was  $156.67 \pm 0.67$  minutes, with a slightly higher value in the Yang-Monti procedure, and intraoperative

blood loss was minimal. In 91.7% the umbilicus was the local of choice for the cutaneous stoma (n=11). No need for laparotomy conversion was reported. The median length of hospitalization was 6 days, similar for both types of surgery. Median time of follow-up was 82 months (IQR 7-85). The global complication rate was 83%. Stoma stenosis was the most common complication (50%) and the only reported early complication reported (<3 months). Half of these patients were treated conservatively while the other 50% required surgical revision. During the follow-up four patients showed stress urinary incontinence through the native urethra, two patients had urinary tract infections (UTI), one developed bladder lithiasis, one developed BCG-refractory urothelial bladder tumour and two haematuria. At the time of the last assessment, mean creatinine was  $0.51 \pm 0.64$  mg/dl and mean Glomerular filtration rate (CKD-EPI) was  $115.96 \pm 0.66$  mL/min/1,73m<sup>2</sup>. Regular urological ultrasound was normal. Currently, 75% have a catheterizable continent stoma (2 patients died from UTI and respiratory infection and 1 had conversion to non-continent urinary diversion) with a mean  $6.5 \pm 0.75$  CIC per day. The global satisfaction rates were positive, with all the patients reporting a moderate-to-significant increase in quality of life.

**Conclusion:** CCUD are feasible and safe in adults with NLUTD. However, considering their significant complication rate, adequate patient selection, multidisciplinary evaluation and careful expectation management are of utmost importance for optimal results. The laparoscopic technique allows a less invasive approach with better recovery. These patients should be followed in referral and high volume centres as further studies with larger samples are still deemed necessary.

#### CO 13

### LAPAROSCOPIC IMPLANTATION OF

### AUS IN WOMEN WITH INTRINSIC SPHINCTER DEFICIENCY: LONG-TERM OUTCOMES AND PREDICTIVE FACTORS FOR FAILURE

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**Introduction:** Stress urinary incontinence (SUI) in female population is a prevalent and bothersome symptom with significant impact on quality of life. Artificial urinary sphincter (AUS) is a treatment option for SUI with intrinsic sphincteric deficiency (ISD), however, due to being a challenging technique with high risk morbidity and due to the paucity of long-term follow-up, its current role in the management of SUI is still lacking evidence.

**Objectives:** We aim to describe the long-term efficacy and safety of AUS implantation in female patients through a minimally invasive approach and to identify clinical predictive factors of complications, need for sphincter revision and definitive explantation.

**Materials and Methods:** A retrospective review of all the female patients submitted to AUS implantation between April 2005 and March 2023 was conducted. All patients were diagnosed with SUI based on the clinical history, examination and urodynamics. The AUS (American Medical System 800™) was implanted via transperitoneal laparoscopic approach, by two experienced surgeons. Patients were assessed at 6 weeks (sphincter activation) and on periodical follow-up visits at 6- and 12-months post-operative and yearly subsequently. Data collected included de-

mographics and baseline characteristics; surgical procedure details; post-operative results and complications; revision (partial or total component replacement), deactivation, and definitive explantation rates, as well as its cause; and current continence and satisfaction status. As secondary outcome, clinical predictive factors of complications, need for sphincter revision and failure of AMS were evaluated.

**Results:** Over an 18 years period, 81 females with a mean age of  $68 \pm 12$  years-old were submitted to laparoscopic implantation of AUS. Most of the patients had previous pregnancies (89.5%), the majority being eutocic deliveries (72.7%). Concerning previous surgeries, 38.3% underwent hysterectomy, 84% incontinence surgery (mainly midurethral slings) and 27.1% prolapse surgery (mainly laparoscopic sacropromontofixation). Fifty percent had a history of other previous abdominal or pelvic surgeries. Median maximum urethral closure pressure (MUCP) was  $16 \text{cmH}_2\text{O}$ . Mean operative time was  $115 \pm 40$  minutes. The most frequently chosen cuff length was 7cm (48.6%) and balloon pressure was 61-80 $\text{cmH}_2\text{O}$ . No case of laparotomy conversion was reported. Intraoperative blood loss was negligible and median hospital stay was 2 days (IQR 2-3). Post-operative outcomes showed that 71.3% (n=57) had no incontinence, 25% (n=20) had an improvement and 3.7% (n=3) had incontinence persistence. Early overall complication rate was 16% (n=13). Most were mild complications, with only one being Clavien-Dindo  $\geq 3$  (sepsis due to sphincter infection). Concerning late complications, a total rate of 60% was found, most of them due to mechanical problems of the device (18.9%), followed by infection (15.1%). At a median follow-up of 67 months (IQR 14-110), 13 patients (16%) had sphincter failure due to erosion (n=8) and infection (n=5) and required explantation. The median time between implantation

and definite explantation was 38 months (IQR 2-75). Eighteen patients needed replacement of the device (22.2%), most frequently because of mechanical device dysfunction (n=12). The mean time between implantation and device exchange due to mechanical problems was  $76 \pm 49$  months. Nine patients (11.1%) underwent AMS deactivation after a median of 72 months (IQR 48-96), mainly due to decreased manual dexterity or cognitive ability. Currently, 72% patients are continent and satisfied with the surgical outcomes. Diabetes, history of previous prolapse surgery or previous abdominal surgeries other than incontinence or prolapsus surgery are significantly associated with definitive explantation rate on univariate analyses but not in multivariate analyses. Patients with age  $\geq 70$  years and follow-up  $\geq 10$  years had a clinically significant predisposition for device change (OR = 0.27, 95% CI [0.08,0.93],  $p=0.04$  and OR= 5.5, 95% CI [1.67,18.1],  $p=0.01$ , respectively).

**Discussion/Conclusions:** Laparoscopic AUS implantation in females is an effective treatment for SUI caused by ISD. Its functional outcomes showed a high rate of success, while the long-term complications and device global survival were acceptable, given the previous failed treatments and poor quality of life due to SUI. Despite being challenging, laparoscopy is a feasible and non-inferior technique when compared to other approaches.

#### CO 14

### PATIENT SATISFACTION, CONTINENCE AND LUTS INCIDENCE FOLLOWING AUS IMPLANTATION – RESULTS FROM A LONG-TERM COHORT

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**Introduction:** Artificial urinary sphincter (AUS) implantation is the standard of care for moderate-to-severe stress urinary in-

continence (SUI). Nevertheless, few studies report on long-term outcomes of this therapy. We aimed to study AUS long-term outcomes, namely efficacy, complications, explantation rate and patient satisfaction.

**Methods:** We retrospectively reviewed 70 AUS implanted at our tertiary center for male SUI between January 1<sup>st</sup> 2008 to March 31<sup>st</sup> 2022. Neurogenic patients were excluded. Data regarding patients' clinical characteristics, perioperative variables, and outcomes was retrieved and analyzed retrospectively. Patients were interviewed and completed OABSS, IPSS, ICIQ UI -SF and ICIQ-Satisfaction questionnaires.

**Results:** From the 70 AUS implanted in our tertiary center during the study timeframe, 21 (30%) underwent explantation and 8 (11,4%) [LM1] patients died. Furthermore, two (2,9%) patients developed dementia and had their AUS deactivated and three (4,3%) were lost to follow-up. All the remaining 36 patients completed the questionnaires. Included patients used a mean  $\pm$ SD of 5,71  $\pm$ 4,05 pads per day (PPD) and 33,3% them had history of pelvic radiotherapy. Median (IQR) follow up was 76,5 (66,5) months. 33,3% of patients reported no incontinence episodes, 18% one episode or less per day and 36% reported incontinence episodes occurring several times per day. Nonetheless, among those reporting any urine loss, 66,7% reported losing only small quantities of urine, 29,2% reported moderate quantities and only 4,2% reported losing large quantities of urine. Median ICIQUI-SF (IQR) score was 4 9 and 75% percent of patients reported using one or less PPD. Overall patients reported low incidence of LUTS as the median (IQR) IPSS score was 3 4 and OABSS score was 1 (3,5). Regarding satisfaction, 85,7% of patients attributed maximum score to their surgical outcome, and 94,7% stated they would advise a friend to undergo AUS implantation and that they would

choose AUS placement again. Patients with RT history had a significantly higher OABSS score ( $p=0,031$ ) and a significantly lower ICIQ-Satisfaction score ( $p=0,009$ ) when compared with patients who had never been submitted to RT. Patients with a history of a previous urethrotomy had a significantly higher IPSS score when compared with those who had never been submitted to such intervention( $p=0,001$ ).

**Conclusion:** AUS is an effective treatment for male SUI as it can achieve long-term social continence and, in some cases, absolute continence. These results are reflected in the exceptionally high patient satisfaction rates. Patients previously submitted to pelvic RT appear to have worse outcomes, with lower reported satisfaction and higher LUTS incidence. Those previously submitted to urethrotomy also appear to have higher LUTS incidence.

## CO 15

### TRANSPERITONEAL VS RETROPERITONEAL APPROACH IN LAPAROSCOPIC PARTIAL NEPHRECTOMY FOR POSTERIOR RENAL TUMORS: A MULTI-CENTER, RETROSPECTIVE STUDY

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**Introduction:** Partial nephrectomy (PN) is as a valid surgical approach for cT1 renal masses (RMs) and is strongly recommended whenever technically feasible. It can be safely performed using a laparoscopic technique, either by the transperitoneal (TP) or retroperitoneal (RP) routes. One of

the advantages of laparoscopic retroperitoneal PN (LRPN) is the direct, rapid access to the posterior hilar structures and to posterior RMs, which allows for less kidney mobilization and rotation. LRPN obviates the need for bowel mobilization, as well as the need for lysis of adhesions in patients with prior abdominal surgery. Also, peritoneal cavity irritation through contamination of blood and urine is avoided. Nevertheless, LRPN might become challenging in cases where there is abundant RP fat (e.g. in obese patients) or when dealing with a large or anteriorly located tumor. In addition, LRPN is technically demanding, with a steep learning curve. On the other hand, laparoscopic transperitoneal PN (LTPN) provides improved spatial orientation due to the familiarity of anatomical landmarks. Increased working space, which allows for wider angulations, enhanced maneuverability and ease in port placement are in favor of LTPN. Major drawbacks of the LTPN are the difficulty in dissection of posterior RMs and subsequent reconstructive suturing.

**Purpose:** To compare perioperative, functional and oncological outcomes of LTPN and LRPN for posterior renal tumors.

**Material and Methods:** A retrospective analysis of 270 patients submitted to laparoscopic partial nephrectomy (LPN) for localized disease between January 2017 and January 2023 in three different centres in Portugal was performed. Patients with anterior or neither anterior nor posterior tumors were excluded. Data on demographics, tumor characteristics and perioperative, functional and oncologic outcomes were compared between the LTPN and LRPN groups.

**Results:** A total of 108 patients was identified, 40 in the LTPN group and 68 in the LRPN group. Baseline characteristics (age, BMI, ASA score, R.E.N.A.L. score, tumor size, preoperative Hb and preoperative eGFR) were comparable between groups.

There were 5 patients converted to open partial nephrectomy in the LRPN group and none in the LTPN group ( $p=0.155$ ). Variation of pre- and postoperative Hb, estimated blood loss, operative time and length of hospital stay were similar between groups. Warm ischemia time (WIT) was significantly shorter in the LTPN group (18.5 min (16.0-21.3) vs 21.0 min (17.0-26.5),  $p=0.007$ ), and there was a tendency towards a lower variation in pre- and postoperative eGFR favouring also the LTPN group (6.80 (-2.68-16.85) vs 14.05 (1.65-24.70),  $p=0.052$ ). Positive surgical margins were lower in the LRPN group, although without statistical significance (5/63 (7.9%) in LRPN group vs 7/40 (17.5%) in LTPN group,  $p=0.140$ ). The overall complication rate was 7.5% (3/40) in the LTPN group and 15.9% (10/63) in the LRPN group ( $p=0.243$ ), with only 1 (2.5%) major complication (grade  $\geq 3$ ) in the LTPN group and 2 (3.2%) in the LRPN group ( $p=1.000$ ). The Trifecta outcome, defined as WIT  $\leq 25$  min, no PSM and no major complications, was similar between groups (29/40 (72.5%) in LTPN vs 39/61 (63.9%) in LRPN group,  $p=0.369$ ).

**Conclusion:** LTPN demonstrated a lower WIT and a tendency towards better preservation of renal function than LRPN, but overall success, as defined by Trifecta outcome, was similar between both approaches.

## CO 16

### RETROGRADE URETERIC STENT VERSUS PERCUTANEOUS NEPHROSTOMY IN UPPER URINARY TRACT OBSTRUCTION: NATIONAL CONSENSUS SURVEY ASSESSMENT

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**INTRODUCTION:** There are no guidelines to support decision in upper urinary tract obstruction. Published reviews provide conflicting evidence regarding the? ideal method to drain upper urinary tract and its indications. This consensus aims to define the indications and recommend the best methods of decompression for various clinical scenarios encountered in urological practice.

**PATIENTS AND METHODS:** A questionnaire, designed to encompass a broad spectrum of clinical scenarios, was distributed to all urologists practicing in Portugal. Participants were asked to rate their level of agreement on the Likert scale. Responses were then analysed to identify the extent of consensus: “clear agreement” (>75%agreement), “broad agreement”; (50-75% agreement) and “no broad consensus” (<50% agreement).

**RESULTS:** We received replies from 104 urologists. There was a clear agreement regarding the need for upper urinary tract decompression with fever, sepsis, acute kidney insufficiency, elevated inflammatory parameters (CRP >5mg/dl) and single functioning kidney. There was clear agreement regarding percutaneous nephrostomy as the best method when facing advanced oncological disease. On the other hand, retrograde catheterization was considered the best method for patients with coagulopathy, taking oral antiaggregant or anticoagulants, and mild hydronephrosis.

Clinicians broadly recommend ureteroscopy when facing lithiasis refractory to medical expulsive treatment, not recommending this intervention in case of fever, sepsis and increased inflammatory parameters. Urologists clearly agree that ureteral stent better preserves the quality of life.

**CONCLUSIONS:** Our study successfully identified consensus among expert Portuguese urologists regarding upper urinary tract decompression. These conclusions serve as a solid foundation for the subsequent formulation of specific guidelines. Our future aim is to assemble Portuguese experts in the next Portuguese Urology Association meeting to define the expert-based consensus national guidelines for UUT decompression.

## CO 17

### ROBOT-ASSISTED RADICAL PROSTATECTOMY IS BENEFICIAL REGARDING URINARY INCONTINENCE AND ERECTILE DYSFUNCTION COMPARED TO OPEN RADICAL PROSTATECTOMY

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**INTRODUCTION:** The preservation of urinary continence and sexual function constitutes a main concern in prostate cancer surgery since both are of crucial importance for future quality of life. Although the results regarding functional and oncological outcomes of robot-assisted radical prostatectomy (RARP) compared to open radical prostatectomy (ORP) remain inconsistent, RARP has become increasingly used worldwide.

**OBJETIVES:** To compare patient-reported urinary incontinence (UI) and erectile dysfunction (ED) 1 year after RARP and ORP.

**METHODS:** This was a prospective and

controlled study of patients undergoing radical prostatectomy (RARP or ORP) for localized prostate cancer, in a tertiary center. Patients who undergone RARP during the first 2 years (2020-2021) of robotic surgery and patients who undergone ORP between 2016-2019 were selected. Clinical records and patient questionnaires – Daily Pad Questionnaire and The International Index of Erectile Function (IIEF-5) Questionnaire – were collected at baseline, 3, 6 and 12 months after surgery. Exclusion criteria included internal optical urethrotomy for vesicourethral stricture and previous prostate cancer treatment (hormone therapy, brachytherapy). Odds ratios (ORs) were calculated with logistic regression and adjusted for possible confounders (age, preoperative prostate-specific antigen, preoperative biopsy Gleason score, prostatectomy specimen Gleason score, lymph node dissection, surgical margin status, pathology tumour stage, postoperative external beam radiation therapy and previous UI or ED).

**RESULTS:** Of 362 patients who undergone radical prostatectomy, 314 (87%) were included, with a mean age (standard deviation) of 66 (5.9) years. Of these patients, 167 men undergone RARP, and 147 men undergone ORP. Regarding UI, 137 (82.0%) men after RARP and 112 (76.2%) men after ORP were continent at 12 months, respectively (adjusted OR: 1.132, 95% confidence interval [CI] 0.597-2.150); 4.2% and 4.8% of patients who undergone RARP and ORP, respectively, were totally incontinent (adjusted OR 0.627, 95% CI 0.150-2.620). Regarding ED, severe ED was present in 115 (68.9%), 99 (59.3%) and 93 (55.7%) men who undergone RARP at 3, 6 and 12 months, respectively; and it was present in 119 (81.5%), 108 (74%) and 105 (71.9%) men who undergone ORP at 3, 6 and 12 months, respectively. The adjusted OR at 12 months was 0.429 (95% CI 0.233-0.790). Furthermore, 26.4%

of RARP patients presented with mild or no ED, while in ORP group this percentage was 8.3% (adjusted OR 5.431, 95% CI, 2.299-12.834).

**CONCLUSIONS:** In our cohort, RARP was beneficial in maintaining urinary continence and preserving erectile function compared to ORP, after prostate cancer surgery. Nonrandomized design, time of follow-up and missed data on post-operative treatment and rehabilitation limit our conclusions, so further studies are needed.

## CO 18

### ENUCLEATION OF LARGE-VOLUME PROSTATES: A COMPARATIVE ANALYSIS OF EFFICACY AND SAFETY

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**Introduction:** Surgical treatment plays a crucial role in the management of lower urinary tract symptoms (LUTS) and complications related to benign prostatic enlargement. Over the years, several techniques have been developed to offer a safe and effective alternative to traditional procedures. Prostate enucleation is a highly recommended surgical technique for prostates with a volume exceeding 80 mL. It involves the removal of the obstructive adenoma by the anatomical plane, ensuring thorough excision. Enucleation can be performed as simple open prostatectomy or transurethral enucleation backed by strong evidence. Additionally, minimally invasive forms of enucleation, such as simple laparoscopic prostatectomy are currently feasible and safe options for treating these patients. However, data related to comparing these different enucleation

methods are scarce.

**Objective:** The primary purpose of this study was to compare the efficacy and safety of open (OSP), laparoscopic (LSP), and transurethral (TEP) enucleation of the prostate in the treatment of large-volume benign prostatic enlargement.

**Methods:** We retrospectively reviewed the clinical records of patients who underwent open, laparoscopic, and transurethral prostate enucleation between January 2018 and March 2023. We only included patients with prostate volume between 70 and 150 mL. Patients with an indwelling catheter at the time of the surgery were excluded from functional analysis. Efficacy was evaluated through the amount of enucleated prostatic tissue and improvement in functional outcomes (IPSS, maximum urinary flow rate and bladder voiding efficiency). Descriptive and comparative statistical analysis was performed using SPSS Statistics 28®. A two-sided p-value <0.05 was considered statistically significant.

**Results:** We analyzed 226 patients who underwent open (n=111), laparoscopy (n=70), and transurethral (n=45) prostate enucleation during the reported period, with a median age of 69 years [64–75]. The median preoperative prostatic volume was 92 [80-110] grams, being smaller in the TEP group (78 [72-87] mL, p<0.01). There were no significant differences between the groups in patient age and preoperative maximum urinary flow rate, bladder voiding efficiency and IPSS score. All the groups significantly improved functional outcomes compared to baseline values. No significant differences were found between the groups in improvement on IPSS score (TEP 85.7% [-8.9 ± 6.2 points] vs. LSP 84.1% [-11.4 ± 8.7 points] vs. OSP 80.1% [-7.6 ± 4.2 points], p=0,112), maximum urinary flow rate (TEP 189% [+13.9 ± 12.6 ml/s] vs. LSP 218% [+17.7 ± 13.6 ml/s] vs. OSP 158% [+10.8 ± 7,4 ml/s], p=0,65) and bladder voiding efficiency (TEP 44.8%

[0,5-148.7] vs. OSP 31.6% [1.1-52.3] vs. LSP 33.2% [5.1-89,6] p=0,91). The amount of enucleated prostatic tissue was lower in TEP group (TEP -29.3 ± 14.6 vs. OSP -50.1 ± 22.1 and LSP -48.7 ± 20.3 g, p< 0,05). The operative time was significantly shorter for OSP compared to LSP or TEP (65 [55-75] vs. 100 [80-136.3] and 100 [80-123.7] min, p< 0.001). The OSP was the most time-effective method (OSP 0.73 [0.50-0.93] vs. LSP 0.43 [0.31-0.61] vs. TEP 0.28 [0,19-0.34] g/min, p < 0.001). There is no correlation between prostate volume and operative time in each group. Median total blood loss (OSP 400 [200-600] vs. LSP 100 [100-200] vs. TEP 50 [85-150] mL, p<0.001) and median hemoglobin drop (OSP 2.6 [1.6-2.6] vs. LSP 1.3 [0.4-1.9] vs. TEP 0.45 [0.2-1.0] g/dL, p<0.001) were significantly lower in the laparoscopic and transurethral group compared to the open group. The TEP group had significantly shorter catheterization time and hospital stay compared with laparoscopic group. (2 [2-3] vs. 4 [4-5] days, p<0.001). The open group had longer catheterization and hospitalization times (5 [4-6] days, p<0.001). The overall complication rate was significantly lower in the laparoscopic group and transurethral group (LSP 20.5% and TEP 18.6% vs. OSP 36.8%, p<0,05) but there was no statistical difference between the groups for complications Clavien-Dindo ≥ 3 (LSP 2.9% and TEP 2.2% vs. OSP 1.8%, p= 0,85).

**Discussion/Conclusion:** Enucleation procedures provide comparable relief of lower urinary tract symptoms. Open enucleation appears to be the most time-effective procedure for removing prostatic adenoma. However, TEP and LSP offered advantages in terms of less intraoperative blood loss, shorter hospital stay, catheterization time, and fewer complications. The recent implementation of transurethral enucleation and the underpowered sample on comparative analysis may underestimate differences in functional outcomes



and postoperative complications.

## CO 19

### ESFÍNCTER URINÁRIO ARTIFICIAL ZEPHYR SURGICAL IMPLANTS (ZSI) 375: UMA ANÁLISE DE EFICÁCIA, COMPLICAÇÕES E QUALIDADE DE VIDA

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**Introdução:** O tratamento de eleição para a incontinência urinária de esforço (IUE) iatrogénica moderada a grave, masculina, é a implantação de um esfíncter urinário artificial. Atualmente, existem vários produtos no mercado disponíveis para o tratamento cirúrgico desta patologia. Este estudo demonstra a experiência de um centro hospitalar com a implantação do esfíncter urinário artificial (EUA) Zephyr Surgical Implants (ZSI) 375.

**Objetivos:** O objetivo deste trabalho é analisar os resultados da implantação do EUA ZSI 375 na IUE em homens, contemplando a eficácia, complicações e avaliação da qualidade de vida.

**Material e métodos:** O EUA ZSI 375 é um dispositivo de peça única composto por uma braçadeira ajustável, moldada à volta da uretra, conectada por um tubo a uma bomba e a um regulador de pressão, não possuindo um reservatório abdominal. Este é um estudo retrospectivo, não randomizado e foi elaborado num serviço de urologia em Portugal. Entre o mês de maio de 2021 e julho de 2023, foram implantados 20 EUAs ZSI 375 consecutivos em homens com IUE iatrogénica moderada a grave, de acordo com o PAD *weight test* de 24 horas. O protocolo pré-operatório incluiu um

PAD test 24 horas, cistoscopia, um estudo de pressão-fluxo e um programa completo de reforço da musculatura do pavimento pélvico. As complicações e o número de pensos diários utilizados foram registados. As complicações perioperatórias foram categorizadas de acordo com a classificação Clavien-Dindo. A qualidade de vida foi avaliada com base no Questionário da Consulta Internacional sobre Incontinência - Formulário Curto (ICIQ-SF) realizado antes da cirurgia e na avaliação após a activação do dispositivo. Por fim foi registado um grau qualitativo de satisfação.

**Resultados:** Neste estudo relatamos a nossa experiência a curto prazo com 20 dispositivos ZSI 375 implantados. Durante o período médio de acompanhamento de 15 meses, a taxa global de sucesso (continência total e social) foi de 70%. Atualmente, o EUA AMS 800 é o dispositivo padrão de referência para a IUE em homens. No entanto, existem algumas preocupações, incluindo a complexidade do procedimento com o consequente consumo de tempo operatório, a incapacidade de ajustar a pressão no dispositivo ou de reajustar a braçadeira no caso de atrofia uretral pós-cirúrgica. O ZSI 375 é um dispositivo relativamente novo. Com o nosso estudo, observámos a simplicidade do procedimento cirúrgico com um tempo cirúrgico curto (média de 69 min), mesmo no início da curva de aprendizagem. Uma importante vantagem deste dispositivo é a possibilidade de ajustar as pressões internas através do aplicador trans-escrotal, no consultório, após a cirurgia, tendo sido necessário em 5 doentes. A complicação mais frequente foi a erosão uretral, que afetou 2 (10%) dos doentes, uma taxa comparável à do AMS 800. Um dos pacientes tinha história de radioterapia prévia, factor adverso para a inserção do esfíncter. A falha mecânica com necessidade de reimplantação do dispositivo afetou 1 (5%) doente na fase inicial do estudo, provavelmente rela-

cionada com inexperiência dos cirurgiões com a utilização deste novo dispositivo, sendo esta taxa também comparável à do AMS 800. A taxa total de complicações foi semelhante à outras séries de utilização de EUA ZSI 375 relatadas. A qualidade de vida avaliada pelo questionário ICIQ-SF mostrou uma melhoria significativa, tendo sido observado um grau de satisfação de 75% com o dispositivo, possivelmente relacionado com simplicidade do mesmo.

**Discussão/Conclusões:** Neste estudo de curto prazo, o EUA ZSI 375 teve uma boa taxa de sucesso no tratamento da IUE moderada a grave masculina, com uma taxa de complicações aceitável. Foram observadas melhorias significativas na qualidade de vida, conforme avaliada pelo questionário ICIQ-SF. Foi também observada a simplicidade do procedimento cirúrgico, com uma curva de aprendizagem curta. Em conclusão, o EUA ZSI 375 é uma boa opção para o tratamento da IUE moderada a grave iatrogénica masculina.

## CO 20

### POST-OPERATIVE COMPLICATIONS OF INGUINAL NODE STAGING IN PENILE CANCER: EXPERIENCE OF A TERTIARY CENTER

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**Introduction:** Penile cancer is a rare disease in developed countries and is usually linked to poor hygiene status, risky sexual behaviour and human papilloma virus (HPV) infection. Inguinal lymph node status is the most significant predictor of survival and adequate inguinal staging should be performed. In patients with  $> pT1a$ , cN0 disease, inguinal staging can be done with dynamic sentinel node biopsy (DSNB) and modified inguinal lymph node dissection (MILND), according to center experience. In patients with cN1-N2 disease radical in-

guinal lymph node dissection is preconized (RILND), since it can be a life saving procedure. Inguinal staging in penile cancer is associated with significant morbidity in the post-operative period. Our objective was to analyse the data regarding post-operative complications.

**Methods:** Patients medical records and surgical reports were analyzed between 2007 and 2023. Data collection incorporated information about body mass index (BMI), cardiovascular risk factors, type of surgery, surgery time, intraoperative surgical details (saphenous vein preservation, sartory transposition, simultaneous pelvic lymph node dissection), post-operative management (hospitalization time, inguinal drain time, use of prophylactic antibiotics) and early ( $< 30$  days) and late ( $> 30$  days) complications. Statistical analysis was performed using SPSS version 29. Categorical variables were compared using Chi-square test and Binary Logistic Regression analysis with a  $p < 0,05$ .

**Results:** Between 2007 and 2023, 61 patients had undergone invasive inguinal lymph node staging. A total of 122 procedures were performed. Mean age was 64 years old. Hypertension, diabetes mellitus type 2, dyslipidemia and tobacco smoking were present in 61,5%, 41,2%, 63,5% and 42,9%, respectively. MILND, RILND and video-assisted inguinal lymph node dissection (VAILND) contributed to 35%, 40% and 10% of the cases, respectively. DSNB was made in 15% of the cases. Mean operative time was 164 min and patients stayed in the hospital 15 days on average. Early post-operative complications were present in 58%, being the most common lymphocele (26,7%), wound infection (23,3%) and skin flap necrosis (18,3%). Most complications were Clavien-Dindo grade  $< 3$  (81%). Late post-operative complications occurred in 20% of the cases. Lower limbs edema, lymphocele and skin flap necrosis were the most common (6,7%, 5% e 3,3%,

respectively) with 83% being Clavien-Dindo < 3.

**Discussion / Conclusions:** Inguinal lymph node dissection has a high complication rate. Older series reported complication rates as high as 60%, while more contemporary series revealed numbers as low as 10%. Limiting the dissection field seems a key factor in achieving a complication free procedure. Our serie revealed a 58% rate of ealy and 20% rate of late complications. These high numbers are explained by the high rate of radical and modified inguinal dissections in our tertiary center until recently. With the introduction of the DSNB and VAILND the numbers of surgical site infections and skin flap necrosis decreased in recent years and we expect better results in the future.

## CO 21

### TUMOR DE CÉLULAS GERMINATIVAS DO TESTÍCULO EM ESTADIO I – ANÁLISE DOS ÚLTIMOS 5 ANOS NO IPO-PORTO

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**Introdução:** O tumor do testículo é a neoplasia mais frequente nos homens entre os 15 e os 44 anos. 75-80% dos seminomas e 55%-64% dos não seminomas são diagnosticados em estadio I.

**Objetivo:** Este estudo pretende caracterizar os doentes com tumor de células germinativas do testículo (TCGT) em estadio I seguidos no IPO do Porto (IPOP) nos últimos 5 anos.

**Material e métodos:** Estudo retrospectivo que incluiu doentes consecutivos com diagnóstico de TCGT em estadio I seguidos no IPOP entre 1 de Janeiro de 2018 e 31 de dezembro de 2022.

**Resultados:** Dos 162 homens TCGT seguidos no IPO, foram incluídos os 108 doentes em estadio I (67%). 64 (59%) eram não seminomas e 44 (41%) seminomas.

As características destes doentes encontram-se sumariadas na **tabela 1**:

Quanto aos fatores de risco (FR) para recidiva dos doentes em estadio I: 78.1% dos seminomas tinham pelo menos 1 FR (tamanho >4cm e/ou invasão da rete testis) e 24% tinha ambos; 47.6% dos não seminomas tinha invasão linfovascular.

Todos os doentes foram submetidos a orquidectomia radical por via inguinal e 72 (67%) doentes foram submetidos a QT adjuvante: 59.4% dos seminomas fizeram 1 ciclo de carboplatina e 77.3% dos não seminomas fizeram QT adjuvante com bleomicina+etoposídeo+cisplatina (BEP) – 73.5% fizeram 1 ciclo e 26.5% fizeram 3 ciclos em contexto de marcadores tumorais positivos. Denotou-se uma tendência para a significância estatística na orientação para QT adjuvante entre seminomas e não seminomas (p=0.053).

Uma regressão logística binária foi usada para avaliar se a idade, a presença de fatores de risco ou de marcadores tumorais positivos se associavam com a probabilidade de QT adjuvante. O modelo foi estatisticamente significativo ( $\chi^2$  (3, N=108) = 23.27, p <0.001). Segundo a **tabela 2**, a presença de FR, mas não a idade ou os marcadores tumorais, contribuíram significativamente para o modelo.

Dos seminomas, 6.3% recidivaram: 3 com metastização retroperitoneal e 1 com metastização mediastínica. Apenas 1 tinha feito quimioterapia (QT) adjuvante. Todos foram submetidos a QT subsequente com BEP, 3 ciclos na doença retroperitoneal e 4 ciclos no doente com metastização mediastínica, e apenas este tem evidência de doença à data da análise.

Dos não seminomas, 11.4% recidivaram: 4 com metastização retroperitoneal e 1 com metastização óssea. 4 tinham feito

QT prévia. Dos doentes com recidiva, 2 fizeram linfadenectomia (ambos com evidência de teratoma) e 2 QT com 3 ciclos de BEP, todos sem evidência de doença após estes tratamentos. Apenas o doente com metastização óssea fez várias linhas de QT (Vinblastina+ifosfamida+cisplatina (VeIP), paclitaxel+ifosfamida+cisplatina (TIP) e carboplatina+etoposídeo+ciclofosfamida (CarboPEC) com suporte hematopoiético), e acabou por falecer 35 meses após o diagnóstico.

O tempo mediano até recidiva foi de 15 meses no grupo dos seminomas (AIQ 8.25-18.75) e 4 meses nos não seminomas (AIQ 3.5-19).

**Conclusão:** O IPOP é um centro com alto volume de doentes com neoplasia testicular, cujas características são sobreponíveis às reportadas na literatura. A presença de fatores de risco foi um preditor independente da realização de QT adjuvante. Apesar de 6.3% dos seminomas e 11.4% dos não seminomas terem recidivado, à data desta análise apenas 1 doente (0.9%) tinha evidência de doença e apenas tinha ocorrido 1 morte (0.9%), o que demonstra o bom prognóstico desta apresentação.

## CO 22

### URETERAL STENTS AFTER RETROGRADE INTRA-RENAL SURGERY: A PROSPECTIVE COMPARATIVE STUDY ON SAFETY OUTCOMES

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**Introduction:** Ureteral catheterization is commonly employed after ureterorenoscopy (URS) procedures, even in uncompli-

cated procedures.

**Objective:** Our aim was to compare the two most frequent ureteral catheters used in our centre in terms of safety.

**Methods:** We conducted a prospective randomized unblinded study involving patients who underwent flexible URS for renal stones between July 2022 and May 2023. Exclusion criteria included ureteral stones, urinary malformations, active urothelial neoplasia, and prior reconstructive surgery. The catheters used were single-J stents (removed the morning after the surgery, <24h) and double-J stents (extracted in a subsequent appointment). The main outcomes were emergency department admission, postoperative complications (assessed within 30 days) and reintervention rate.

**Results:** Ninety-seven patients were included, with 50 in the single-J group (Group J) and 47 in the double-J group (Group JJ). Baseline characteristics did not differ between groups (Table 1). Double-J stents were removed after a median of 28 days (IQR 21-36). No intraoperative complications were reported. There were no statistically significant differences in emergency department admission between the groups (22% in Group J vs 12.8% in Group JJ,  $p=0.232$ ) nor in total complications (12% vs 10.6%,  $p=0.833$ ). Only one patient in each group experienced a complication above Grade III according to the Clavien-Dindo Classification and required reintervention, without statistically significant differences between stent type (2% vs 2.1%,  $p=0.737$ ) – an obstructive pyelonephritis requiring stenting in Group J and an incrustated stent requiring endourological treatment in Group JJ.

**Conclusions:** Single-J stents did not associate with statistical differences in post-operative complications, rehospitalization or reintervention. Therefore, they seem a viable alternative for complete flexible URS, reducing hospital visits for stent re-

moval and the associated complications like stent-related symptoms related and forgotten stents.

### CO 23

#### **EXPLORING MINIMALLY INVASIVE PYELOPLASTY: INSIGHTS FROM A SINGLE-CENTER PATIENT DATABASE**

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**Introduction:** Ureteropelvic Junction Obstruction (UPJO) is characterized by an anatomical or functional narrowing at the junction between the renal pelvis and the ureter, often leading to impaired urine drainage, renal pain, and potential renal deterioration. While open surgical techniques have traditionally been employed to correct this condition, laparoscopic pyeloplasty has gained favor due to its minimally invasive nature, reduced postoperative pain, shorter hospital stays, and quicker recovery times. As such, it has emerged as a gold standard technique which, over the years, has demonstrated remarkable efficacy and safety becoming the preferred choice for many urologists. In this paper, we present a comprehensive single-center database of patients who have undergone laparoscopic pyeloplasty, offering a relevant repository of clinical information in the management of UPJO.

**Objectives:** This study aimed to analyze the short- and long-term morbidity related to laparoscopic pyeloplasty and its functional outcomes, namely the ureteral patency rate at more than one year of follow up.

**Material and Methods:** We retrospectively reviewed all patients who underwent upper urinary tract surgical reconstruction for UPJO at our center between January

2012 and June 2022 with at least one year of follow up. Other reconstructive surgeries of the ureter were excluded. Data was extracted from patient charts, surgery logs, and electronic health records and analyzed to describe the population, prior and concurrent diseases, etiology of de UPJO, surgical technique, accessory procedures, peri-operative complications, duration of surgery, in-hospital stay, use of antibiotics and opioids on discharge, recurrence rates and need for additional treatments. Before surgery, diagnosis was performed by routine urinary tract CT scan and renogram and informed consent was signed. Every patient had a previous urine culture and did prophylactic antibiotics peri-procedure. Limitations arise from the nature of the retrospective study.

**Results:** In total, 40 patients were included, of which 60% were female, with a median age of 39 (19-72) years old. The most frequent pre-operative causes of UPJO were idiopathic in 70% of cases, extrinsic vascular compression in 23% of cases, and known congenital UPJO in 7% of cases. Importantly, there were no cases of iatrogenic etiology. There was an even distribution between the right (n=21) and left side (n=19). The majority of patients (60%) had no other known diseases, however, a sizeable percentage (27%) had known concomitant or previous renal lithiasis on the ipsilateral side. All patients were submitted to a laparoscopic dismembered pyeloplasty, with 23% requiring a supplementary kidney stone removal procedure, such as a pyelolithotomy or pyelocalyceal extraction using a fibrin coagulum. A double-J stent was placed in every surgery. Median anesthetic time was 244 (158-395) minutes. No intra-operative complications were reported and 1 patient had a significant urinary leak which involved a substitution of the double-J stent in the early 30-day post-operative period (Clavien-Dindo IIIb). Median length of in-hospital stay after surgery

were 3 (2-13) days. An antibiotic was given to 66% of patients at discharge, being cefuroxime (75%) the most prescribed. Opioid medications were not given to any patients. Double J was removed at a median of 46 (19-65) days after surgery. The vast majority (89%) had no recurrences during follow-up as indicated by an absence of obstruction on a renogram examination and no need for subsequent treatment.

**Discussion/Conclusions:** Our statistics compare favorably with the majority of the recent literature with similar peri-operative complications, in-hospital stay and success rates, suggesting that laparoscopic pyeloplasty has been a safe and successful procedure to treat the UPJO. Possible improvements can still be made to reduce antibiotic overuse. A robotic approach is anticipated to further improve future results as we continue to work to provide our patients with the finest healthcare possible. We eagerly await what the future holds.

## CO 24

### TRATAMENTO DO TUMOR DE CÉLULAS GERMINATIVAS DO TESTÍCULO AVANÇADO - EXPERIÊNCIA DE UM CENTRO

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**Introdução:** As neoplasias do testículo são altamente quimiossensíveis e têm elevada probabilidade de cura mesmo se se apresentarem em fases avançadas e com fatores de risco de mau prognóstico.

**Objetivo:** Pretendemos caracterizar os doentes com tumor de células germinativas do testículo (TCGT) em estadio II ou III seguidos no IPO do Porto (IPOP) nos últimos 5 anos.

**Material e métodos:** Estudo retrospectivo que incluiu doentes consecutivos com diagnóstico de TCGT em estadio II ou III seguidos no IPOP entre 1 de janeiro de 2018 e 31 de dezembro de 2022.

**Resultados:** Foram incluídos 54 doentes, 22 (40.7%) em estadio II e 32 (59.3%) em estadio III ao diagnóstico. Relativamente ao tipo histológico do tumor, 40 (74.1%) eram não seminomas e 14 (25.9%) seminomas. A maioria dos doentes foi diagnosticado por massa testicular e posterior orquidectomia radical, mas em 6.2% o diagnóstico foi realizado por biópsia de metástases.

As características dos grupos estão descritas na tabela 1:

Dos doentes com metastização à distância, 45% tinham metastização pulmonar; os restantes locais de metastização foram gânglios linfáticos não regionais (15%), hepática (5%), mediastínica (5%), pleural (5%) e supra-renal (5%). 20% dos doentes foi classificado como M1 pelo envolvimento descontínuo do cordão espermático pela neoplasia (todos não seminomas).

Nos seminomas, a 1ª linha de quimioterapia (QT) foi 3 ciclos de BEP em 86% e 4 ciclos de BEP em 14%. Dos não seminomas, a 1ª linha de QT foi com BEP, 3 ciclos em 50% e 4 ciclos em 50%. Um doente (1.9%) faleceu após completar 3 ciclos de BEP, por infeção respiratória (sobrevida mediana 3 meses). 14.3% dos seminomas e 25% dos não seminomas necessitaram de QT de salvação, sem diferença estatisticamente significativa ( $p=0.407$ ). O esquema de QT de segunda linha mais utilizado foi vimblastina+ifosfamida+cisplatina (VeIP), em 75% dos doentes. 2 doentes (16.7%) receberam paclitaxel+ifosfamida+cisplatin (TIP) e 1 doente (8.3%) foi tratado com etoposídeo+cisplatina (EP). Após completarem a segunda linha de QT, 6 doentes (50%) ficaram sem evidência de doença, 4 doentes (33.3%) ainda tinham evidência de doença ativa e 2 doentes (16.7%) faleceram por

progressão da doença (sobrevida mediana 16 meses). Dos doentes com persistência de doença, a 3ª linha de QT foi com VelP nos doentes que não tinham realizado antes, gemcitabina+oxaliplatina (GemOX) ou carboplatina+etoposídeo+ciclofosfamida (CarboPEC) com suporte hematopoiético. Um doente realizou ainda uma 4ª linha de QT de salvação com TIP. No total, foi realizada linfadenectomia retroperitoneal em 18 (45%) doentes com doença avançada (3 por via laparoscópica) – 50% apresentaram necrose ou alterações reativas à quimioterapia, 39% componente de teratoma e 11% neoplasia germinativa viável. Adicionalmente, 3 doentes foram submetidos a exérese de metástases por outras especialidades. O tempo seguimento mediano foi 26.76 meses (AIQ 13.16-44.28) nos seminomas e 24.43 (AIQ 17.14-37.52) nos não seminomas (p=0.557). Houve 3 (5.6%) mortes e a sobrevida mediana destes doentes foi de 16 meses. À data da análise, apenas 2 (3.7%) doentes apresentam evidência de doença.

**Conclusão:** Este estudo demonstra o bom prognóstico dos TCGT em estadios avançados e que a QT de salvação num centro com experiência tem bons resultados. De futuro, poderá ser realizado um estudo com maior tempo de seguimento, de forma a avaliar a sobrevivência e complicações destes doentes.

## CO 25

### SEMEN PARAMETERS IN TESTICULAR TUMOR PATIENTS BEFORE ORCHIECTOMY: WHAT IS THE IMPACT OF TESTICULAR TUMOR STAGE AND HISTOLOGY?

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**Introduction:** Testicular germ cell tumor (GCT) is the most prevalent cancer among men aged 20 to 40, impacting approxi-

mately 1 in 200 men. While the majority of patients remain healthy after undergoing orchietomy, they may encounter difficulties in conceiving a child due to the adverse impact of the malignancy on sperm production. Research has indicated that individuals with testicular cancer frequently exhibit reduced semen quality, particularly in terms of preorchietomy sperm concentration and total sperm count, compared to healthy individuals. Moreover, additional treatments administered after orchietomy can further compromise a patient's fertility. Chemotherapy and radiation therapy are known to be harmful to the testes, while retroperitoneal lymph node dissection may lead to impaired ejaculation and subsequent infertility. Despite advancements in these adjunct treatments, a decline in fertility remains observable in males who undergo additional therapies following orchietomy.

**Objective:** To study the impact of testicular cancer stage and histology on semen parameters in preorchietomy cryopreservation samples.

**Materials and Methods:** We retrospectively collected semen parameter data, stage and histology from patients who cryopreserved sperm prior to orchietomy for testicular cancer between March 2016 and March 2023. The WHO 2010 semen parameter criteria was used to categorize values as normal or subnormal. Statistical analysis was performed using SPSS Statistics 27®.

**Results:** A total of 54 patients underwent preorchietomy cryopreservation, 41 (76%) stage I and 13 (24%) stage II/III. Baseline characteristics were similar between these groups (similar age, BMI, tumor size and distribution between seminoma and NSGCT). Two patients (4%) had azoospermia. No significant differences were found in the semen parameters between seminoma and NSGCT patients. When comparing stage I and stage II/III

patients, progressive motility percentage was significantly higher in the stage I group ( $54.17 \pm 18.72$  % in stage I vs  $40.93 \pm 25.01$  % in stage II/III,  $p=0.046$ ) and there was a tendency towards better total motility percentage in the stage I group ( $72.90$  ( $55.85-78.95$ ) % in stage I vs  $61.10$  ( $21.45-68.70$ ) % in stage II/III,  $p=0.089$ ). When analyzing by categories of sperm parameters, a tendency to teratospermia (<4% normal forms) was observed in the stage II/III group ( $11/41$  (27%) in stage I vs  $7/13$  (54%) in stage II/III,  $p=0.072$ ).

**Conclusion:** Stage II/III testicular patients were found to have significant less progressive motility percentage and a tendency towards less total motility percentage and to teratozoospermia. Sperm banking should be sought in all patients with testicular cancer, irrespective of stage, but this study highlights its importance in patients with stage II/III testicular cancer, which are also the ones who will undergo subsequent gonadotoxic treatments that will further impair their semen parameters and fertility.

## CO 26

### NEPHRECTOMY WITH AUTOTRANSPLANTATION: LAST RESOURCE

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**Introduction and Objectives:** Nephrectomy with autotransplantation has been performed as an alternative of treatment for complex renovascular lesions, complex ureteral strictures and nephron-sparing surgery in complex renal tumors.

In this study we report on our 10-year experience with nephrectomy with autotransplantation.

**Materials and Methods:** A retrospective observational study was conducted including patients who underwent nephrectomy

with autotransplantation at our institution from June 2012 to June 2022). Data collected included surgery indications, surgical technique (open/laparoscopic, operative time, ischemia time), complications according to Clavien-Dindo classification, mean hospital stay and long-term renal function.

Descriptive and inferential statistical analysis was performed using IBM® SPSS® Statistics versão 28.0.1.0. software.

**Results:** A total of 33 procedures were included with a median follow-up of 57 months [25-90]. Thirty one kidneys were retrieved through laparoscopic transperitoneal, and 2 through lumbotomy. Indications were complex renovascular diseases in 30 cases (90.9%), long ureteral stricture in 2 cases (6.1%) and complete ureteral avulsion in 1 case (3.0%). Patient's median age was 47 years [38-61]. Median surgical time was 342 minutes [285-366]. Median cold ischemia time was 143 minutos [103-180]. Mean hospital stay was 11 days ( $\pm 5$ ). Complications occurred in 20 patients (60.6%): 9 Clavien-Dindo I and II (infection and hematuria), 8 Clavien-Dindo IIIb (6 renal vein thrombosis requiring nephrectomy, 1 perirenal hematoma requiring surgery and 1 surgical site infection requiring reintervention), 3 Clavien-Dindo IVb (hemorrhagic shock requiring reintervention, nephrectomy in 2 cases). There was significant association between autotransplant renal loss and intraoperative complications record ( $p=0.008$ ). There was no significant association between preoperative and postoperative creatinine levels ( $p=0.092$ ).

**Conclusion:** Complex renovascular abnormalities are nowadays the main indication of autotransplantation. Given the complexity and frequent surgical complications, this procedure should be considered as last resource before nephrectomy for highly selected cases. Minimally invasive surgery could play a role in the near future



in this procedure.

## CO 27

### INJEÇÃO INTRAVESICAL DE TOXINA BOTULÍNICA EM MULHERES COM BEXIGA HIPERATIVA IDIOPÁTICA – O QUE FALTA SABER?

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**Introdução:** A bexiga hiperativa idiopática (SBH) é uma patologia prevalente, com um grande impacto na qualidade de vida das doentes. Em casos refratários, a injeção intravesical de toxina botulínica é uma alternativa, com estudos a reportar uma diminuição significativa das queixas urinárias. Não constitui um tratamento definitivo, tendo uma duração média de 6 meses. Apesar de reportada como de elevada eficácia, é também referido um significativo abandono da terapêutica a longo prazo, não sendo certo o que o motiva.

**Objetivos:** Neste estudo pretendemos avaliar a eficácia da toxina botulínica no tratamento da SBH e identificar os determinantes da sua eficácia e duração de efeito.

**Material e Métodos:** O presente estudo trata-se de um coorte retrospectivo observacional. Foram incluídas mulheres com mais de 18 anos, com diagnóstico de SBH submetidas a tratamento com injeção de toxina botulínica entre 2013 e 2023. Foram excluídas as doentes com causa identificada para o seu quadro clínico, assim como as doentes cujo primeiro tratamento foi realizado no último trimestre de 2023 por não se considerar terem tido tempo suficiente para uma adequada reavaliação de necessidade de novas injeções. Foi avaliada a idade ao diagnóstico, IMC, colocação de sling suburetral previamente ao diagnóstico de SBH, número de pensos

usados antes e após a intervenção, número de tratamentos com toxina botulínica e o tempo decorrido até cada um deles, e satisfação das doentes. O outcome primário foi a eficácia avaliada através de cessação de necessidade de pensos. O tempo entre injeções, os determinantes de eficácia, assim como a satisfação das doentes avaliada através da resposta afirmativa à pergunta “Está satisfeita?” foram considerados outcomes secundários. Foi usado o software SPSS para análise estatística. Foi realizada uma análise descritiva da amostra. As frequências foram expressas em percentagens, e as variáveis contínuas foram apresentadas em médias e medianas, com o respetivo desvio padrão e intervalo interquartil. Foram utilizados os testes de t-student e qui-quadrado, considerando um valor de  $p < 0.05$  como estatisticamente significativo.

**Resultados:** Foram submetidas a injeção vesical com toxina botulínica 375 mulheres com SBH, tendo sido excluídas 7 doentes cujo procedimento decorreu no último trimestre de 2023. Entre as 368 doentes avaliadas, a idade média ao diagnóstico foi de 60.4 anos, com um IMC médio de 30.3. Destas, 27.7% tinha sido submetida previamente a colocação de sling. A maioria (62%) das doentes ficou a usar 0 pensos após tratamento. Antes da injeção de toxina botulínica, a mediana de pensos utilizados por dia era de 3 e após a injeção passou a 0. Em 60.1% dos casos, as doentes precisaram de mais injeções, sendo que a mediana de tratamentos adicionais foi de 1, com mediana de tempo até à segunda injeção de 18 meses. Verificou-se que a um menor número de pensos usados previamente se associou uma maior probabilidade de ficar continente. Quanto maior o número de pensos pré-procedimento, menor o tempo até nova injeção. As doentes que tinham colocado sling tiveram menor probabilidade de ficar secas. As mulheres que repetiram a injeção pelo menos 2 ve-

zes eram mais jovens ao diagnóstico. As doentes que se disseram satisfeitas repetiram o tratamento em maior proporção do que as não satisfeitas. Não foi encontrada relação estatisticamente significativa entre IMC e continência após injeção.

**Discussão/conclusões:** A análise dos dados demonstrou que a maioria das doentes deixou de precisar de pensos após o tratamento com toxina botulínica, reiterando a sua eficácia. O número de pensos usados previamente e a história de colocação de sling afetaram o resultado do tratamento. A idade ao diagnóstico e a satisfação determinaram a repetição do procedimento. O tempo mediano entre procedimentos foi superior à literatura, em muitos dos casos provavelmente por questões intrínsecas à logística do próprio serviço.

## CO 28

### THE ROLE PLATELET-LYMPHOCYTE RATIO AS A POTENTIAL PREDICTOR OF LATE RECURRENCE OF RENAL CELL CARCINOMA

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**Introduction:** There is few evidence on the optimal duration of follow-up after surgical treatment of renal cell carcinoma (RCC). While some authors argue that imaging is not cost-effective after 5-yr, up to 20% of recurrences in patients treated with nephrectomy for RCC occur 5-yr after surgery (late recurrence). Moreover, late metastases are more likely to be solitary and justify therapy with curative intent. Although there are some validated models for recurrence (e.g. Leibovich), there is none currently available to predict late recurrence (>60 months) or to identify those patients that could benefit from a longer follow-up. Several studies have suggested the peripheral blood platelet-lymphocyte ratio (PLR), a biomarker of systemic inflammatory responses, could be a prognostic

predictor in some cancers.

**Objectives:** The aim of our study was to evaluate PLR as a potential predictor for late recurrence of RCC in patients with localized disease surgically treated.

**Materials and Methods:** We conducted a retrospective study at a tertiary centre, including patients with clinically localized (cN0M0), clear cell RCC, who underwent radical/partial nephrectomy between 2005-2012, without recurrence during the first 60 months of follow-up. Late recurrence was defined as local or distant disease after 60 months. We preformed univariate Cox regression to estimate recurrence free survival and multivariate regression analysis to identified prognostic factors of late recurrence. Ethical Committee approval was obtained.

**Results:** A total of 140 patients (67 % males) with a median age of 58 years, were followed for a median of 134 months. Thirteen (9.3 %) had late disease recurrence with a median recurrence time of 119 months. Most patients had pT1a (n=75, 53.6%) and pT1b (n=37, 26.4%) stage. In univariate analysis, tumour size (HR 1.267  $p=0.008$ ), nuclear grade (G3-4) (HR 4.199,  $p=0.017$ ), more advanced local T-stage ( $\geq T2$ ) (HR 7.613,  $p=0.001$ ), necrosis (HR 5.040,  $p=0.004$ ), lymphovascular invasion (HR 3.558,  $p=0.026$ ) and higher PLR (HR 1.006,  $p=0.014$ ) were associated with late recurrence. Patients with PLR greater than 160 had higher change of late recurrence (HR 4.643,  $p=0.006$ ). After adjusting for other variables, PLR remained a significant independent predictor of late recurrence (HR 1.010,  $p=0.023$ ). A PLR value higher than 160 had a cox-adjusted HR of 5.725,  $p=0.014$ .

**Conclusion:** As far as we know, this study is among the first to report PLR as an independent predictor for late recurrence of RCC, with potential clinical utility. In agreement to previous reports, in our study, local staging, histological grade, tumour ne-

crisis and lymphovascular invasion were also prognostic factors for late recurrence of RCC, after surgical treatment.

## CO 29

### CORPOROPLASTIA DE ALONGAMENTO COM TACHOSIL NA DOENÇA DE PEYRONIE – UMA ANÁLISE MULTICÊNTRICA NACIONAL

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**Introdução:** A doença de Peyronie pode caracterizar-se por uma curvatura peniana adquirida com impacto na função sexual do doente. A corporoplastia de alongamento é o tratamento cirúrgico indicado em doentes com curvatura peniana grave (superior a 60°) ou complexa e função erétil preservada. O TachoSil® (Baxter Healthcare Corp, EUA) é uma matriz selante de fibrinogénio e trombina que tem vindo a ser cada vez mais utilizado nas corporoplastias de alongamento pela sua facilidade de aplicação.

**Objetivo:** Avaliação dos resultados de corporoplastias de alongamento com TachoSil® em Portugal.

**Métodos:** Estudo retrospectivo multicêntrico em doentes com doença de Peyronie submetidos a corporoplastia de alongamento com Tachosil® entre 2016 e 2023 em quatro hospitais nacionais. Foram avaliados dados demográficos, ângulo da curvatura, International Index of Erectile Function-5 (IIEF5) pré e pós-operatório, comprimento peniano (pré e pós-operatório), localização da curvatura, tempo entre início de sintomas e cirurgia, variáveis intra-operatórias, complicações pós-operatórias. As variáveis são expressas em fre-

quência relativa ou média  $\pm$  desvio padrão.

**Resultados:** Obteve-se uma amostra de 79 doentes com uma média de idade de 59.5 $\pm$ 7.4 anos, um IIEF5 pré-operatório de 17.0  $\pm$ 5.3 e um tempo de seguimento após a cirurgia de 37.9 $\pm$ 22.6 meses. Constatou-se que 23.2%, 13.0%, 13.0% e 4.3% apresentavam história de diabetes melitus, trauma peniano, doença de Dupuytren e cirurgia pélvica radical, respetivamente. O comprimento peniano pré-operatório foi de 13.1  $\pm$ 1.3 cm, com um ângulo de curvatura mediano de 80.1  $\pm$ 12.4 graus. As curvaturas foram dorsais, dorso-laterais, laterais e ventrais em 66.7% 27.5%, 2.5% e 1.3%, respetivamente. A duração média da cirurgia foi de 90.1 $\pm$ 16.0 minutos. Considerando complicações pós-operatórias, 8.5% apresentaram hematoma, 2.8% infeção do local cirúrgico e nenhum necessitou de reintervenção cirúrgica. Considerando complicações andrológicas reportadas pelo doente, 9.9% referiu diminuição da rigidez peniana, 7.0% dor peniana, 5.6% diminuição do comprimento peniano, 4.2% hipostesia da glândula e presença de curvatura residual em 4.2%. O comprimento peniano imediato após a cirurgia, avaliado intraoperatoriamente, foi de 13,96  $\pm$ 1.1 cm e o comprimento peniano um mês após a cirúrgica foi de 14,2 $\pm$ 1.0 cm. Após a cirurgia, 40.8% necessitaram de inibidores da fosfodiesterase tipo 5 (IPD5) e 4.8% de prótese peniana.

**Discussão:** A corporoplastia de alongamento com TachoSil® no tratamento de doença de Peyronie é uma cirurgia em crescimento. Dada a sua ação hemostática e ausência de necessidade de sutura, o TachoSil tem sido cada vez mais utilizado nesta indicação clínica. Com este trabalho compilou-se a casuística de quatro instituições nacionais na realização deste procedimento, demonstrando que este procedimento é eficaz, seguro e tem uma taxa de complicações, nomeadamente disfunção erétil, aceitável. Apesar de uma pe-

quena percentagem de doentes reportar diminuição subjetiva do comprimento peniano após a cirurgia, a medição objetiva apenas identificou um caso de redução do comprimento e a média do comprimento peniano pós-operatório foi superior à do pré-operatório. Contudo, a necessidade de IPD5 para otimização da função erétil pós-operatório mostrou ser frequentemente necessária. Assim, a corporoplastia de alongamento com Tachosil® é uma técnica cirúrgica eficaz na correção de curvaturas penianas graves e complexas.

### CO 30

#### COMPLICAÇÕES VASCULARES APÓS TRANSPLANTE RENAL EM CONTEXTO DE DOAÇÃO APÓS MORTE CIRCULATÓRIA NÃO CONTROLADA: UM ESTUDO PROSPECTIVO

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**Introdução:** O transplante renal representa uma opção terapêutica para os indivíduos com doença renal terminal, oferecendo uma melhoria da qualidade de vida e da sobrevida. Dada a escassez de órgãos, os rins provenientes da doação em contexto de morte circulatória não controlada (uDCD) são uma oportunidade de expandir o conjunto de órgãos disponíveis para transplante. Sendo este um pool de doadores marginais, existe uma preocupação acrescida com os eventos vasculares no pós-operatório.

**Objetivo:** Análise prospetiva das complicações vasculares do transplante renal após uDCD.

**Métodos:** Entre janeiro de 2016 e maio de 2022 foi realizado um estudo prospetivo com análise dos recetores de transplante renal provenientes de doadores uDCD com uso de oxigenação por membrana extra corpórea como perfusão normotérmica regional. Foram avaliados dados demo-

gráficos e clínicos do dador e do recetor como idade, género, creatinina do dador à data de morte, índice de massa corporal, causa da doença renal crónica, tempo e tipo de diálise. Foram ainda considerados o tempo de isquemia quente e fria. Os recetores foram categorizados com base na presença ou ausência de complicações vasculares. As complicações arteriais foram classificadas em trombose (com necessidade de transplante ou trombectomia cirúrgica), estenose (com necessidade de revisão cirúrgica, colocação de stent ou sem intervenção), kinking e pseudoaneurisma. A complicação venosa considerada foi a trombose (com necessidade de transplante, trombectomia cirúrgica ou anticoagulação). Foram consideradas complicações hemorrágicas clinicamente significativas como choque hemorrágico, hemorragia não responsiva a transfusões ou hematoma com comprometimento dos vasos do aloenxerto (com necessidade de revisão cirúrgica ou transplante).

**Resultados:** Obteve-se uma amostra de 112 transplantes renais após uDCD e um tempo médio de seguimento de 54,5 meses. Quatorze (12,5%) tiveram complicações vasculares, incluindo complicações arteriais (5,4%), complicações venosas (3,6%) e hemorragia (3,6%). Cinco (4,5%) pacientes necessitaram de transplante. A idade dos doadores era superior nos transplantes com complicações vasculares (55,5 anos vs. 48,0 anos,  $p=0,016$ ). Os transplantes de doadores com mais de 50 anos estavam associados a um risco aumentado de complicações vasculares, com odds ratio de 4,31 (1,13 a 16,44; intervalo de confiança de 95%). As restantes variáveis não mostraram ter impacto no surgimento de complicações vasculares.

**Discussão:** Entre os vários desafios da transplantação renal, as complicações vasculares suscitam um elevado nível de preocupação, uma vez que representam um risco significativo para a viabilidade do

aloenxerto e a sobrevida do doente. No contexto uDCD algum grau de lesão micro e macrovascular ocorre inevitavelmente devido ao período de no-flow, isquemia-reperusão e ao possível fenómeno de não-reperusão após a desclampagem. Erros na técnica cirúrgica e uma perfusão insuficiente durante a colheita podem contribuir para dificuldades na restauração do fluxo sanguíneo conduzindo a fenómenos trombogénicos. Neste tipo de transplantação existe uma predisposição hemorrágica causada pela menor qualidade dos vasos, disrupção da agregação e adesão plaquetar e pelo uso de heparina sistémica durante o ECMO. No nosso centro a tromboprofilaxia pós-operatória não é usada por rotina. A idade do dador demonstrou ser um fator de risco significativo para o surgimento de complicações vasculares em transplantes renais uDCD.

### CO 31

#### **RECUPERAÇÃO FUNCIONAL DOS NERVOS CAVERNOSOS ATRAVÉS DE MEMBRANA FIBROSA BIOATIVA CONTENDO FATOR DE CRESCIMENTO NERVOSO ENDÓGENO.**

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O Cancro da Próstata é um dos mais frequentes no sexo masculino, sendo a prostatectomia radical um dos tratamentos mais eficazes. Apesar disso, a prevalência de disfunção erétil pós-operatória por dano aos nervos cavernosos é elevada. Os nervos periféricos têm a capacidade para regenerar e recuperar função após lesão, no entanto a sua capacidade de autorregeneração é limitada e não proporciona uma capacidade de regeneração completa.

Neste estudo, foi investigada a capacidade de uma membrana fibrosa bioativa para regenerar os nervos cavernosos (NC) lesados. Num modelo de rato com lesão bilateral dos NC, o fator de crescimento nervoso (Nerve Growth Factor – NGF) presente na urina de ratos é ligado seletivamente à membrana fibrosa bioativa, sendo que a implantação desta induz a regeneração dos NC e a restauração da função erétil. Desta forma, este modelo mimetiza o dano neuronal associado à prostatectomia radical. A membrana fibrosa é produzida pela técnica de eletrofiação. 29 Ratos da espécie Sprague-Dawley foram utilizados: 5 para recolher fluidos biológicos, e os restantes 24 foram divididos em 4 grupos e submetidos a cirurgia pélvica com ressecção do pénis, próstata e tecidos circundantes incluindo o implante para análise histológica. Ao fim de 5 semanas após cirurgia, a função erétil foi avaliada. No grupo controlo “sham”, não foi realizada nenhum procedimento adicional; nos restantes 3 grupos, os NC foram lesados por esmagamento durante 30 segundos: o grupo “crush” foi o controlo negativo e não recebeu tratamento adicional; nos restantes grupos, uma membrana fibrosa eletrofiada “MFe” e uma membrana fibrosa bioativa com NGF de urina dos ratos “MFe-NGF” foi colocada no local da lesão nervosa.

Após a injeção subcutânea de apomorfina, a função erétil foi avaliada através de um score que compreendia a exposição da

glande e a ereção do pênis, a recuperação da função erétil e a pressão intracavernosa ajustada à pressão arterial média (PIC/PAM). Foi ainda realizada uma análise de expressão génica neurogénica, imunohistoquímica e de imunofluorescência. O score de função erétil aos 20 minutos foi estatisticamente mais baixo no grupo “MFe” quando comparado com o grupo “MFe-NGF” e “sham” ( $p < 0.01$ ). Os ratos do grupo “MFe-NGF” mostraram uma recuperação da função erétil comparável ao grupo “sham”, com diferenças significativamente superiores para os restantes grupos ( $p < 0.001$ ). O rácio PIC/PAM foi mais elevado no grupo “sham”, mas mostrou ser aumentado no grupo “MFe-NGF” em relação aos restantes. A presença de músculo liso nos corpos cavernosos e densidade tecidual fibroelástica é normal no grupo “sham”, seguido do grupo “MFe-NGF”. O grupo “MFe” apresentou um atrofia muscular e densidade fibroelástica aproximada ao grupo “crush”. Apenas os ratos do grupo “MFe-NGF” apresentaram uma sobreexpressão dos genes neurogénicos quando comparados com os restantes grupos ( $p < 0.01$ ). Este grupo apresentou ainda um aumento do conteúdo em sintases de óxido nítrico endotelial e neuronal (eNOS e nNOS). O grupo “MFe-NGF” apresentou também uma restauração da lesão por esmagamento dos nervos cavernosos de forma semelhante ao grupo controlo “sham”, e com diferenças significativas para o grupo “crush” e “MFe” ( $p < 0.01$ ). Os ratos do grupo “MFe-NGF” apresentaram índices de função erétil próxima do grupo controlo “sham”, correspondendo a uma recuperação de pelo menos 65%. O uso de fatores de crescimento permite uma regeneração neuronal aprimorada, contribuindo para a recuperação dos NC. Os fatores de crescimento “NGF” extraídos da urina de rato proporcionam uma abordagem clinicamente relevante quando comparado com proteínas que são administradas li-

vemente. Em conclusão, esta solução personalizada pode constituir um tratamento eficaz para pacientes com cancro da próstata submetidos a prostatectomia radical que apresentem disfunção erétil, superando as desvantagens dos tratamentos atualmente disponíveis para lesões dos NC.

## CO 32

### PHOTOSELECTIVE VAPORISATION OF THE PROSTATE USING 180-W GREEN-LIGHT XPS™ LASER FOR BENIGN PROSTATIC OBSTRUCTION TREATMENT: OUTCOMES OF 1-YEAR FOLLOW-UP

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**Introduction:** Lower urinary tract symptoms (LUTS) caused by benign prostatic obstruction (BPO) impact the quality of life in men. Transurethral resection of the prostate (TURP) has been considered as reference technique for surgical management in men with moderate-to-severe LUTS with a prostate volume of 30-80 cc. However, alternative techniques such photoselective vaporisation of the prostate (PVP) using greenlight lasers have emerged. Despite proved non-inferiority efficacy of 180-W GreenLight XPS™ PVP comparatively to TURP in terms of functional and symptomatic post-operative outcomes, the quantity of follow-up data reported regarding this technique is still low.

**Objectives:** To evaluate efficacy and complications outcomes of 180-W GreenLight XPS™ PVP during 1-year follow-up.

**Material and methods:** We conducted a retrospective data collection from all patients who underwent outpatient 180-W GreenLight XPS™ PVP between July 2020 and April 2022 at our center. Pre-operative data was assessed: age, prostate

volume, post-void residual (PVR) volume, maximum urinary flow rate (Qmax), International Prostate Symptom Score (IPSS), LUTS pharmacological treatment, use of antiplatelets or anticoagulants. Peri-operative data was registered: operative time, vaporisation time, amount of laser energy used, catheterisation time. Post-operative data was evaluated at 1-month, 6-month, and 1-year follow-up: PVR, Qmax, IPSS, complications registered in patients' national medical record, need for surgical re-intervention. IBM® SPSS® statistical analyses was performed: paired t-tests for variables that followed a normal distribution; Wilcoxon tests for variables that did not follow a normal distribution; significance level of  $p < 0.05$  was used for all tests; Chi-square test was used to examine the relationship between antiplatelets or anticoagulants use and complications.

**Results:** We collected data from 70 patients. Pre-operative data: mean age of 68 ( $\pm 7$ ) years, mean prostate volume of 43 ( $\pm 13$ ) cc, median PVR of 70 [0; 600] mL, mean Qmax of 8.80 ( $\pm 2.95$ ) mL/s, mean IPSS of 12.49 ( $\pm 7.50$ ); 63 (90%) patients were using alpha-blockers; 15 (21%) were using antiplatelets and 5 (7%) anticoagulants, none of which were stopped or bridged for surgery. Peri-operative data: mean operative time of 31 ( $\pm 19$ ) min, mean vaporisation time of 20 ( $\pm 11$ ) min, mean laser energy of 197 ( $\pm 101$ ) kJ; median catheterisation time of 1 [1;15] day, no immediate complications were reported. After 1-month, median PVR of 45 [0; 370] mL ( $p < 0.001$ ), mean Qmax of 13.64 ( $\pm 12.70$ ) mL/s ( $p = 0.001$ ), mean IPSS of 3,41 ( $p < 0,001$ ), 17,1% (12 patients) reported storage symptoms, 17,1% (12 patients) had a treated UTI and other 8,6% (6 patients) had a treated orchitis. Comparatively to pre-op: after 6-months, median PVR of 15 [0; 400] mL ( $p = 0,005$ ), mean Qmax of 14,02 ( $\pm 9,75$ ) mL/s ( $p = 0,037$ ), 22,9% (16 patients) reported storage

symptoms; after 1-year, median PVR of 0 [0; 127] ( $p < 0,001$ ), mean Qmax of 14,62 ( $\pm 7,01$ ) mL/s ( $p < 0,001$ ), 8,6% (6 patients) maintained storage symptoms (2 required intradetrusor botox injection), 15,7% (11 patients) revealed urethral stricture (7 required urethrotomy and 3 meatotomy), and 4,3% (3 patients) maintained voiding complaints needing an extra procedure (2 required TURP and 1 repeated PVP). The use of antiplatelets correlated to occurrence of complications ( $p = 0,03$ ) but the same was not true for anticoagulants ( $p = 0,891$ ).

**Discussion/Conclusions:** Our results align with existing literature on 180-W Green-Light XPS™ PVP, highlighting its efficacy in relieving LUTS associated with BPO. Prospective studies without selection bias and long-term follow-ups are warranted to better evaluate the durability of this technique and optimal prevention of its complications.

### CO 33

#### THE EUROPEAN SCHOOL OF UROLOGY (ESU) UROLOGY BOOT CAMP (ESU-UBC) PROGRAM FOR FIRST-YEAR RESIDENTS: PRELIMINARY RESULTS

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**INTRODUCTION:** The ESU developed the

Standardization in Surgical Education (SISE) program, a comprehensive approach to surgical education, including several structured and validated training curricula, aiming to standardize urological training. The first step to the SISE program is the ESU-UBC, a course that provides basic technical skills to first-year Urology residents.

**OBJECTIVES:** We aim to analyze the preliminary results of the first editions of the ESU-UBC.

**MATERIAL AND METHODS:** The ESU-UBC is a one-day intensive hands-on training course, organized into four standardized training modules (laparoscopy, upper urinary tract endoscopy, transurethral resection, lower urinary tract endoscopy), with a 1:1:1 trainee:trainer:model ratio, using high-fidelity models and state-of-the-art equipment. Over six years, seventeen editions of the ESU-UBC were organized, in nine countries, with a total of 224 trainees. Trainers and trainees rated their experience and the appropriateness of the model to train basic urological skills (content validity). Reliability was calculated by comparing each domain between different editions.

**RESULTS:** The quality of the course was rated excellent by 85% of trainees and 69% of trainers, and good by 14% of trainees and 31% of trainers, respectively. In terms of the usefulness of the training for the near future, 87% of trainees rated the course excellent and 13% good. When considering the improvement of technical skills, 36% of trainees rated the course excellent and 52% good. Overall, 82,1% of trainers rated the course extremely appropriate to provide basic technical skills in laparoscopy, 67,9% in upper urinary tract endoscopy, 75% in transurethral resection, and 75% in lower urinary tract endoscopy. Similar results were obtained in all editions.

**DISCUSSION/CONCLUSIONS:** With a total of seventeen courses organized in nine countries, the ESU-UBC has shown

reliability and content validity to provide basic technical skills in laparoscopy, upper urinary tract endoscopy, transurethral resection, and lower urinary tract endoscopy to first-year Urology residents.

#### CO 34

#### HISTORIA DA ENDOSCOPIA UROLÓGICA

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**Introdução:** HISTÓRIA é o estudo parcial ou total, do passado humano, com vista a conseguir dele uma noção comprovadamente exata e compreensível, além de integrável numa ordem evolutiva. Importa recordar o passado, para explicar o presente e para conduzir o futuro. Os problemas médicos associados às cavidades escuras do tracto urogenital suscitavam um desafio. Foi Bozzini que em 1804 desenhou o primórdio dos cistoscópios, mas foi Edison que sete décadas mais tarde com uma ideia luminosa os tirou da escuridão!  
**Objectivos:** recordar os primórdios da endoscopia, e toda a história da evolução do Cistoscópio Universal.

**Material e métodos:** revisão da literatura sobre a história da endoscopia Urológica, ilustrada com fotos inéditas e originais de cistoscópios pertencentes a coleções particulares. Antoine Desormeaux, o pai da endoscopia, introduziu em Paris a 1823 o seu cistoscópio feito em tubo de prata com um conjunto de lentes e espelhos nos quais projecta a luz resultante da chama de uma mistura de turpentina e álcool (fig.1); Nitze no final do séc. XIX introduziu os cistoscópios com irrigação e canal de trabalho os quais foram aprimorados em 1896 por Joachim Albarran com um sistema em que o cateter podia ser elevado ou abaixado por uma pequena alavanca colocada na extremidade distal do instrumento resultando no chamado Cistoscópio



Universal (fig.3).

**Discussão/Conclusão:** Gostando-se verdadeiramente duma Especialidade Médica ou Cirúrgica, sentimos a premente necessidade de saber das suas origens, da sua evolução e de conhecer os seus protagonistas. Com o advento das fibras ópticas pode-se criar instrumentos cada vez mais exíguos, flexíveis (fig.4) e com melhor imagem, conseguindo-se quase atingir a “alma” do doente sem este dar conta. Neste contexto, poder-se-à afirmar ser muito atual o conhecido aforismo de Abel Salazar quando, no primeiro quartel do século XX dizia que “o Médico que só sabe Medicina, nem Medicina sabe”.

### CO 35

#### BIETHICS OF SURGICAL TRAINING PROGRAMS IN UROLOGY

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**INTRODUCTION:** The traditional surgical training model has faced a wide variety of challenges, that might compromise the quality of surgical training in Urology and might therefore have serious ethical implications in terms of patient safety.

**OBJECTIVES:** We aim to analyze the current status of surgical training programs in Urology with regard to their most relevant bioethical considerations.

**MATERIAL AND METHODS:** After a review of the literature on surgical training programs in Urology was performed, focusing on the limitations resulting from legal, regulatory, and ethical constraints, three main bioethical themes were identified (informed consent, participation of residents in surgical procedures, and the or-

ganization of surgical training programs), which were the subject of an online questionnaire.

**RESULTS:** A total of 161 responses were obtained from 19 countries on five continents. Regarding the use of informed consent to perform surgical procedures, 73.3% considered it to be an extremely relevant subject, and 21.7% relevant, in 89.4% of cases due to ethical and legal reasons simultaneously. In only a minority of cases do informed consents include express authorization to use data from the procedure for academic or scientific purposes, to record the procedure, for the procedure to be performed by residents under supervision, for the procedure to have residents assisting, for the procedure to have residents actively participating or for the procedure to be performed independently by residents. Although the majority of institutions analyzed effectively allowed the participation of residents in surgical procedures, communication of this fact to patients with regard to their specific procedure only occurred in a minority of cases. Although the majority of respondents consider it relevant to have a detailed program that includes the activities to be carried out by residents, to have a detailed list of surgical procedures that can be performed, and that training based on simulation should be an integral part of training programs, this does not seem to be the reality in most institutions.

**DISCUSSION/CONCLUSIONS:** Despite the use of informed consent being widely disseminated, the information contained therein is quite heterogeneous, with obvious gaps with regard to express authorization for residents to participate in the procedures in question. Although most respondents consider the existence of a detailed program that includes the activities to be carried out and a detailed list of surgical procedures that residents can perform during training to be relevant, this

does not occur in more than half of the cases. Although the overwhelming majority of respondents consider that simulation-based training should be an integral part of surgical training programs in Urology, the same does not occur in the vast majority of institutions and is not even accessible in almost half of the cases.

### CO 36

#### VALIDAÇÃO EXTERNA DA CALCULADORA DE RISCO IDENTIFY

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*8 Nuremberga;*  
*9 Reading;*  
*10 Madrid;*  
*11 Derby;*  
*12 Ha Noi;*  
*13 Trieste;*  
*14 Cork;*  
*15 Manchester;*  
*16 Londres;*  
*17 Oxford;*  
*18 Edimburgo*

**INTRODUÇÃO E OBJECTIVOS:** A estratificação de risco dos doentes referenciados por hematúria é de extrema importância para o diagnóstico precoce de neoplasias, bem como para a utilização eficiente de recursos em saúde. Foi recentemente desenvolvido, a partir do estudo IDENTIFY, um modelo preditivo que utiliza uma calculadora para estimar o risco de neoplasia urológica. Este modelo permite auxiliar os médicos na avaliação diagnóstica de doentes com hematúria. O objectivo deste trabalho foi o da validação externa desta calculadora de risco num coorte diferente da população em qual o modelo foi desenvolvido (IDENTIFY).

**Métodos:** Foram registados os dados com base nas variáveis utilizadas na calculadora de risco, assim como o outcome de neoplasia. Doentes com diagnóstico prévio ou actual de neoplasia urológica foram excluídos. Foram comparadas as características demográficas entre os coorte da calculadora de risco com o coorte da validação. Para avaliar a validação externa foi utilizado a *area under the receiver operation characteristic curve (AUC)*, *calibration slope*, *calibration in the large (CITL)* e o score de Brier.

**Resultados:** Foram incluídos 3483 doentes de 111 hospitais provenientes de 27 países. 12 desses países não tinham sido incluídos no coorte da calculadora de risco. O coorte da calculadora de risco e o coorte da validação foram emparelhados. Quando comparados os outcomes a *calibration slope* foi de 0,97, a *CITL* foi de 0,33 e a *AUC* foi de 0,79. O score de *Brier* foi de 0,15.

**Conclusões:** Validação externa da calculadora de risco IDENTIFY mostra boa precisão e discriminação para a estimativa de neoplasia do aparelho urinário em doentes referenciados por hematúria. Este modelo subestima ligeiramente o risco e pode ser recalibrado ao ajustar a intercepção com a regressão. Esta calculadora de risco recalibrada pode ser introduzida em algoritmos diagnósticos de doentes com hematúria de forma a melhorar a sua estratificação de risco bem como a melhor alocação de recursos em saúde.

### CO 37

#### EXTERNAL VALIDATION OF 2019 BRIGANTI'S AND 2019 DRAULANS' NOMOGRAMS FOR SELECTING PATIENTS FOR EXTENDED PELVIC LYMPH NODE DISSECTION

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**Introduction:** The nomograms published by Briganti and by Draulans in 2019 are

valuable tools for estimating the risk of lymph node invasion (LNI) and identifying prostate cancer (PCa) patients diagnosed via magnetic resonance imaging (MRI)-targeted biopsy who may benefit from an extended pelvic lymph node dissection (ePLND). Nevertheless, their widespread adoption has been hindered by the absence of formal external validation. We aimed to validate the 2019 Briganti and 2019 Draulans nomograms in a population of Portuguese PCa patients.

**Materials :** We retrospectively reviewed all PCa patients submitted to radical prostatectomy (RP) with extended pelvic lymph node (eLND) diagnosed using MRI-targeted with concomitant systematic biopsy between January 2021 and June 2023. Patient's clinical record was accessed, data was collected in a database and analyzed.

**Results:** 51 patients were submitted to RP with eLND during the study time frame, and lymph node invasion (LNI) was observed in nine (17.6%) of these patients. Mean PSA at diagnosis was  $11,29 \pm 6,77$  ng/mL. On MRI, 49% of patients showed signs of capsule invasion, and 11.8% displayed signs of seminal vesicle invasion. ISUP grade at target biopsy was at least 4 in 47.6% of patients. The mean percentage of positive cores on systematic biopsy was  $50.1\% \pm 23.6\%$ . ISUP grade corresponding to the greatest tumor length on systematic biopsy was 2 in 17.6%, 3 in 43.1%, 4 in 25.5%, and 5 in 15.7% of cases. The median number of nodes removed was 12 (interquartile range 9.5–16.5). On external validation, the 2019 Briganti's nomogram had an area under the receiver operating characteristic curve (AUC) of 73%. Using the proposed 7% cutoff, nine eLND could have been avoided without missing any LNI. Regarding Draulans' nomogram AUC was 57 %. Using a 5% cutoff, 11 eLND would have been spared nevertheless 1 patient with LVI would be missed.

**Conclusions:** Nomograms based on

MRI-targeted and systematic biopsy can effectively aid in even further selecting patients for ePLND, thereby limiting the morbidity of the procedure to those who truly benefit from it. In our cohort, the Briganti 2019 nomogram demonstrated superior performance compared to the one proposed by Draulans.

## CO 38 RETIRADO

## CO 39 AN INNOVATIVE BLADDER CATHETER FOR PATIENTS WITH HEMATURIA

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**Introduction:** Blood clots are the main concern for urologists in patients with hematuria (for 60% in a previous study by the same authors, 64.3% if after surgery). Virtually all urologists use continuous bladder irrigation in this setting. 88.6% of urologists have already had to operate/reoperate patients because of clots in the bladder. Current 3-way bladder catheters have serious limitations regarding prevention of clot formation. These medical devices have only one instillation hole at the tip. Ideally, this hole is oriented to the base/posterior wall of the bladder, to induce movement of the liquid (urine, blood, instilled saline) which, due to gravity, accumulates in this area. However, if the catheter is rotated, instillation liquid is directed elsewhere and clot formation prevention is not adequate nor achieved.

**Objective:** To present a new bladder catheter, specifically designed to prevent clot formation and its serious consequences and confirm its efficacy.

**Material & Methods:** To prevent clot formation, it's terrible consequences for the patients (discomfort, pain, infection, need for transfusion and/or surgery), the extensive workload for the whole healthcare team to solve this problem (namely the

need for permanent monitoring of continuous bladder irrigation, recurrent manual bladder washout, etc.) and associated costs (saline, syringes, containers, antibiotics, etc.), we developed a new medical device - a totally new and innovative bladder catheter, to prevent the formation of clots in bladder lumen. Instead of having only one instillation hole at the tip, located inside the bladder, our device has three instillation holes, each located at 6° from each other. This configuration assures that, at every moment and independently of the catheter position, one or even two instillation jets are directed toward the basis of the bladder. At any given moment, the instillation liquid is adequately directed to the right point, regardless of patient and/or catheter positioning. Liquid stasis and clot formation is therefore much better prevented.

After developing 1<sup>st</sup> and 2<sup>nd</sup> stage prototypes, we conducted a computer fluid dynamic study to analyze the flow pattern created by a catheter positioned inside the bladder. The flow pattern for a 3-hole configuration was studied and compared with the conventional 1-hole catheter. Three position angles were studied for the 1-way configuration: 0° deg, 90° and 180° (0° means the orifice pointing to the bottom); for the 3-way configuration, two angles were simulated: 0° and 60° (more than 60° is redundant). Movements, velocity, mixture qualification of the saline solution, urine and blood inside of the bladder and blood drainage (blood mass extraction) were studied. The gravity was considered in the simulation.

**Results:** The mass fraction of the blood at the catheter outlet was similar for both the 3-holes and 1-hole configuration at 0° position and 90° positions; however, when we the 1-hole entry pointing is directed the top, at 180°, the mass flow is considerably affected, and worse results are observed. The main differences are observed during

the initial 150 seconds, but a similar behavior persisted thereafter. The standard deviation quantifies the mixing efficiency. The 1-hole configuration with the entry pointing to the bottom, 0°, shows the best mixing result. However, 3-hole configuration is similar or better, when comparing with the 1-hole at 90° and 180°.

As for drainage, the 3-hole configuration varies little when changing the position angle, while for the 1-hole the extraction of the blood was considerably reduced.

**Discussion/Conclusions:** The 3 instillation holes catheter avoid liquid stasis inside the bladder.

For the 3 directions/angles studied, we observed that when the 1-hole catheter was turned to the top, the extraction of the blood became significantly worse. The 3-hole catheter exhibited a flow pattern which was invariant with the simulated catheter's openings position. In other words, its performance is independent from said orientations. We anticipate that our new catheter will significantly decrease patients' suffering, complications, the workload of the medical and nursing teams and the costs associated with blood and clots in urine.

#### CO 40

##### **ONE-STAGE TRANSURETHRAL VENTRAL INLAY BUCCAL MUCOSA GRAFT: A FEASIBLE TREATMENT OF DISTAL PENILE AND FOSSA NAVICULARIS STRICTURES**

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**Introduction:** Surgical repair of distal penile and fossa navicularis strictures continues to pose a challenging issue in the field of reconstructive urology due to the na-

ture of the strictures and their underlying pathology. Historically utilized approaches to treat this condition encompassed use of ventral or circumferential penile skin incisions with urethral dissection and the subsequent placement of a fasciocutaneous flap, buccal mucosa graft (BMG) or both. However, these techniques presented several notable problems, including a significant likelihood of a multistage repair, suboptimal aesthetic results and inconsistent outcomes particularly in men with lichen sclerosus and hypospadias. An one-stage transurethral ventral inlay BMG approach was described in efforts to avoid the inherent technical difficulties and complications of prior techniques.

**Methods:** We performed a retrospective review of patients who underwent transurethral ventral BMG inlay urethroplasty for isolated distal penile strictures from February 2020 to February 2023. Patients with greater than six-months follow-up were included. Patients undergoing concomitant urethroplasty of a different urethral segment were excluded. Patient demographics, medical history and stricture characteristics (etiology, length and prior treatments) were recorded. Studied outcomes included: stricture recurrence (defined as need for any interventions, including dilation or urethroplasty during the follow-up period); perioperative data such as surgical time, hospital length of stay and complications; clinical data such as preoperative and postoperative uroflowmetry, and post-void residual; patient-reported outcomes such as lower urinary tract symptoms and satisfaction. Descriptive and inferential statistical analysis was performed using the IBM® SPSS® Statistics version 28.0.1.0 software.

**Results:** Five patients met inclusion criteria. Median age and median IBM were 56 years (IQR 40-61) and 27.3 (IQR 25.2-30.6), respectively. Median stricture length was 2.5 cm (IQR 2.0-3.0). The urethral meatus

was involved in 4 cases. The underlying causes comprised: lichen sclerosus (LS) (n=2, 40%), inflammatory (n=1, 20%), and idiopathic (n=2, 40%). Two patients had prior intervention for distal stricture. Median surgical time was 120 minutes (IQR 116-142). Within the first 90 days postoperatively, there was 1 patient with Clavien-Dindo grade 2 complication (UTIs requiring oral antibiotics). No patient suffered a graft loss, fistula or glans dehiscence at any point during follow-up. Median follow-up was 15 months (IQR 10-19). All patients remained stricture-free. The median maximum urinary flow rate showed improvement from 6.1 (IQR 2.7-11.2) mL/s to 10.0 mL/s (IQR 6.7-24.0) (p=0.144). The PVR decreased from a median of 80 mL (IQR 53-227) to 31 mL (IQR 14.0-35.0) (p=0.285). A single patient reported experiencing a spraying effect in their urinary stream.

**Conclusions:** Transurethral ventral inlay BMG is a feasible treatment of isolated distal penile and fossa navicularis strictures. Nonetheless, further long-term follow-up is essential to ascertain the durability and overall success of this technique in providing improved outcomes for patients with distal urethral strictures.

#### CO 41

#### ASSESSING MORBIDITY FOLLOWING TRANSPERINEAL PROSTATE BIOPSY: INSIGHTS FROM A COHORT OF 106 MEN

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**Introduction and objectives:** Transperineal prostate biopsy (TPB) has become a standard diagnostic tool for detecting prostate cancer (PCa). While it offers advantages over the traditional transrectal approach with lower risk of infection and sepsis, it is not devoid of potential morbidity. We aim to evaluate clinical complications following TPB.

**Methods:** In this prospective study based in our outpatient clinic, TPB were performed under local anaesthesia using MRI/TRUS fusion guidance with KOELIS OBT Fusion® technology. A double sextant TPB was performed following the MUSIC template. In the presence of a PI-RADS score <sup>3</sup>3, a targeted biopsy (at least two cores for each suspicious lesion) was also performed. Forty-six patients received antibiotic prophylaxis with Fosfomicin on the day before and on the day of the biopsy. We assessed PCa detection rates, complication rates and patient tolerability. Follow up data was collected at day 7 post-biopsy via telephone interview. Anticoagulant drugs were suspended adequately before the procedure.

**Results:** We performed 106 TPB between February and July 2023. Median age was 65.2 ± 7.9 years and median PSA was 8.3 ± 6.5 ng/mL.

During the procedure, pain scores were rated the highest during infiltration of local anaesthetic with a median score of 6 out of 10. Three (2.8%) of patients experienced prostatitis after the procedure, and two (1.8%) of them required hospital admission for IV antibiotics. No statistically significant differences were found among patients that underwent antibiotic prophylaxis and the group that was not exposed to antibiotics (p= 0.027). No patients experienced acute urinary retention or severe sepsis. Mild hematuria was reported in 32% and urethrorrhagia in 19% of patients but none required any treatment and all resolved 7 days after the procedure. One (0.9%) patient reported a perineal hematoma. In the comparative assessment between targeted and systematic TPB results, it was determined that 26% of individuals who underwent targeted TPB experienced an upgrading in ISUP grade (an increase to ISUP <sup>3</sup>3).

**Conclusions:** Our data is in line with the current literature and confirms that TPB

under local anaesthesia is safe, well tolerated and feasible. TPB offer precise targeting of suspicious lesions, guided by advanced technology fusion with mpMRI, significantly enhancing the likelihood of detecting clinically significant cancers. Their ability to improve accuracy, reduce complications, and provide a more comprehensive assessment of prostate cancer risk underscores their growing importance in clinical practice.

#### CO 42

### ASSOCIAÇÃO PORTUGUESA DE UROLOGIA: UM SÉCULO DE INOVAÇÃO E FORMAÇÃO

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Podemos encontrar referências a procedimentos urológicos em manuscritos com cerca de 2500 anos. No entanto, só no século XIX é que a urologia começou a emergir como um ramo independente da medicina, com a introdução do primeiro cistoscópio com luz incandescente, na Alemanha.

Em Portugal, a história da urologia remonta a mais de 500 anos atrás, com o cirurgião português João Genovez a ser o primeiro a obter aprovação real para realizar cirurgias urológicas em 1502. Só 400 anos depois é que Artur Ravara estabeleceu a urologia como uma especialidade independente, implementando a primeira consulta de urologia e cistoscopia em 1902. O primeiro curso de urologia português foi realizado por Ângelo da Fonseca em Coimbra, em 1906. Estes dois últimos senhores estiveram entre as 25 personalidades responsáveis pela fundação da Associação Portuguesa de Urologia, em 1923, e foram os seus dois primeiros presidentes (Artur Ravara, 1923-1930; Ângelo da Fonseca,

1930-1932). A Associação Portuguesa de Urologia foi a primeira associação médica criada em Portugal e uma das primeiras associações de urologia na Europa.

Ao longo da sua existência, a Associação Portuguesa de Urologia e os seus membros contribuíram para a evolução da Medicina e da urologia a nível mundial. Reynaldo dos Santos, o seu 5º presidente, foi o primeiro a realizar uma aortografia a nível mundial e a primeira urografia em Portugal, tendo também um papel importante na urodinâmica. Morais Zamith foi o 6º presidente, tendo contribuído para o ensino da urologia ao escrever o livro intitulado "Semilogia e Clínica Urológica". Alexandre Linhares Furtado foi o 13º presidente e uma personalidade notável no mundo dos transplantes, sendo responsável pelo primeiro transplante renal em Portugal, no mesmo dia em que Neil Armstrong caminhou na lua (20 de julho de 1969), e também por vários avanços na transplantação hepática.

A Associação Portuguesa de Urologia desempenha um papel central na formação de novos urologistas e na disseminação da consciência sobre a Urologia em toda a comunidade médica, com muitos workshops fornecidos anualmente para melhorar e atualizar o conhecimento em urologia entre os urologistas e seus associados.

Em 2023, a Associação Portuguesa de Urologia celebra o seu 100º aniversário, com várias atividades planeadas ao longo do ano para devidamente louvar a paixão pela Urologia, culminando no final do ano com o Congresso Nacional Português de Urologia, em Coimbra, para comemorar os 100 anos desde a sua fundação.

### CO 43

#### MANAGEMENT OF TRAUMATIC URETHRAL STRICTURES. EXPERIENCE AT THE LA PAZ UNIVERSITY HOSPITAL.

*Carlos Toribio*

**Introduction:** The management of traumatic urethral strictures remains a challenge for urologists. In most cases, the existing defect between the urethral ends is small, and the ideal treatment is end-to-end perineal urethroplasty. Cases with extensive strictures that are left with long defects may require the use of different sequential maneuvers to achieve a tension-free anastomosis.

**Objective:** To describe our experience at our center with urethral strictures caused by closed perineal trauma.

**Materials and methods:** A retrospective analysis of 116 patients who underwent urethroplasty for urethral stricture after blunt perineal trauma at our center between 1965 and 2020.

*Demographic data, date, mechanism of action of the trauma, emergency management, previous urethral interventions, surgical technique carried out in our center, complications, presence of erectile dysfunction and urinary incontinence were collected.*

**Results:** 82 patients (70,7%) presented with pelvic fracture. The most frequent form of trauma was traffic accident (68%), followed by crushing (24%). Suprapubic cystostomy was placed in 50.2% and urethral realignment performed in 25.3%. It was not necessary to perform urethral re-routing in anyone. The mean stricture length was 2.2cm, affecting mostly membranous urethra (67%). During surgery it was necessary to separate the corpora cavernosa in 61.5% and partial pubectomy in 18.8% of the cases. Erectile dysfunction developed after trauma in 40.5% of cases and new erectile dysfunction was noted in 4.3% patients after surgery. Surgery was successful in 91.3% of cases with a median follow-up of 16 (6-47) months.

**Conclusion:** Deferred anastomotic urethroplasty offers a high success rate in traumatic urethral strictures.

## Vídeos

### VD 01

#### **PRIAPISMO RECORRENTE RESOLVIDO MEDIANTE SHUNT SAFENOCAVERNO-SO.**

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**Introdução:** O priapismo é uma ereção persistente na ausência de estímulo sexual que não se resolve. É classificado em isquêmico, não isquêmico e intermitente. O priapismo isquêmico é uma ereção persistente marcada pela rigidez dos corpos cavernosos e baixo ou nenhum fluxo arterial cavernoso. O priapismo isquêmico é o subtipo mais comum (95% dos casos) e causa dor.

**Material e métodos:** Paciente de 37 anos que consulta devido a uma ereção mantida por 40 horas. Após o consumo de drogas (cocaína e maconha), o paciente tomou um iPDE5. Apresenta uma ereção peniana importante e dolorosa, os corpos cavernosos estão aumentados de consistência, dolorosos à palpação, sem pulsos anormais palpáveis. A sensibilidade está preservada. A gasometria dos corpos cavernosos mostrou baixa pO<sub>2</sub> (pressão parcial de oxigênio), pCO<sub>2</sub> (pressão parcial de dióxido de carbono) de 89,7mmHg e pH de 6,901. A análise geral mostrou glicose de 109mg/dL, creatinina de 0,89, hemoglobina de 14,2, hematócrito de 41,3%, leucócitos de 20.100, neutrófilos de 86% e INR de 0,868. O diagnóstico foi de priapismo venoso.

**Resultados:** O tratamento do priapismo

venoso deve ser sequencial. Inicia-se com a punção aspirativa dos corpos cavernosos com Abocath de 16G, aspirando aproximadamente 250 ml sem obter flacidez, seguido de lavagens com soro sem melhora. O próximo passo é a terapia com fenilefrina intracavernosa. O paciente é monitorado e são aplicadas 3 doses de 0,2 mg/ml de fenilefrina intracavernosa durante 40 minutos, sem resposta, decidindo-se pela intervenção cirúrgica. É realizado o shunt cavernoesponjoso segundo a técnica de Winter, sem resposta. Em seguida, é realizado o shunt caverno-esponjoso seguindo a técnica de Al Ghorab, sem obter completa flacidez. Nova gasometria com pH de 7,42, pO<sub>2</sub> de 104 e pCO<sub>2</sub> de 35, compatível com sangue arterial. O paciente é transferido para a planta. Na manhã seguinte, ocorre recidiva do priapismo. À palpação, os corpos cavernosos estão totalmente trombosados. É realizada uma exploração cirúrgica de urgência. Decide-se realizar o shunt safeno-cavernoso direito, seguindo a técnica de Grayhack, com resultado satisfatório.

**Conclusões:** O priapismo é uma urgência urológica que requer intervenção precoce se a etiologia for isquêmica. A história clínica, gasometria dos corpos cavernosos e eco Doppler são suficientes para diagnosticar o tipo de priapismo. O tratamento é sequencial. O shunt safeno-cavernoso é a técnica que resolve o priapismo resistente.



## VD 02

### INFLATABLE PENILE PROSTHESIS INSERTION IN A REDO CASE WITH SEVERE INTRACORPOREAL FIBROSIS

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Penile fibrosis due to previous penile infection and/or prosthesis explants entails situations of high surgical complexity. In these cases, reimplantation should follow an alternative scheme, aimed at minimizing perioperative and postoperative complications, as well as achieving maximum efficiency of the procedure and greater postoperative satisfaction of the patient and his partner. Resection of fibrous tissue, use of grafts to cover defects of tunica albuginea are frequent scenarios in those cases after infection of the primary device, complex Peyronie's disease cases or redo cases. Fourty five years old patient with post priapism erectile dysfunction was previous submitted to three penile prosthesis implantation and subsequent explantation due to infection, urethral erosion and tunica albuginea bulging. In this video, we show our technique for solving these difficult situations in penile prosthesis surgery. With this special case, we present our personal experience and main surgical alternatives for these patients, who pose the most complex and challenging surgical scenarios.

## VD 03

### URETROPLASTIA COM MUCOSA ORAL PELA TÉCNICA DE NIKOLAVSKY APÓS MEATOPLASTIA DE MALONE

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**Introdução:** A estenose da uretra masculina é uma condição comum com diversas causas, incluindo trauma iatrogênico,

fraturas da uretra, algaliação, infecções, hipospádias e condições inflamatórias. As estenoses na uretra peniana distal, fossa navicular e meato são um desafio, sendo as abordagens cirúrgicas mais eficazes. Porém a técnica cirúrgica ideal ainda não está bem definida. A abordagem transuretral com aposição de enxerto ventral inlay, pela técnica de Nikolavski, tem mostrado simplificar o procedimento do ponto de vista técnico e reduzir o risco de complicações.

**Objetivo:** Apresentamos um vídeo de uma uretroplastia ventral com mucosa oral segundo a técnica de Nikolavsky após meatotomia de Malone, num doente com estenose da fossa navicular e meato uretral, com período evolução longo, refratário a terapêutica não invasiva.

**Descrição do caso:** Doente de 59 anos, com antecedentes de prostatite de repetição com necessidade de algaliação e litíase renal submetido a ureterorenoscopia em 2007. Referenciado à consulta de urologia em 2008 por sintomas do trato urinário baixo essencialmente de esvaziamento. Constatação de estenose da uretra peniana distal, fossa navicular e meato ao exame objetivo e em uretrografia. Iniciou tratamento com dilatações sequenciais da uretra distal com melhorias de curta duração com recidivas constantes. Em 2021 foi submetido a meatotomia, sem melhoria. O doente manteve queixas de esvaziamento, progressivamente piores e em 2022 realiza uma urofluxometria um fluxo máximo de 10 mL/s. É proposto para uretroplastia com mucosa oral, que aceitou.

**Procedimento:** Posicionamento do doente em decúbito dorsal. Meatotomia ventral e dorsal com identificação de sub-estenose importante na fossa navicular. União do epitélio da glândula ao da uretra com pontos simples com Vicryl 4/0. Efetuada incisão em V invertido com o ápice do V próximo ao limite proximal da meatotomia dorsal (segundo a técnica de Malone). Após dis-

secção em profundidade da incisão em V, unimos com Vicryl 4/0 os bordos internos do V que formam o teto do meato e encerramos a glândula com pontos simples vicryl 4/0.

Depois, efetuou-se uma incisão ventral na pele do pênis para posterior ajuste dos nós da uretroplastia. Realizou-se outra incisão ventral da fossa navicular e uretra peniana distal, neste caso, por via transuretral, com aproximadamente 3 cm de extensão. Remoção do tecido fibrosado e aumento do leito ventral de modo a permitir a introdução de um espéculo nasal para posterior colocação do enxerto de mucosa oral.

Colheita de mucosa oral jugal (esquerda) com cerca de 2 por 4 cm e remoção de tecido adiposo subjacente. Encerramento do defeito da mucosa oral com Vicryl Rapid 4/0, sutura contínua.

Passagem de 3 pontos com vicryl 4/0 no ápex da mucosa oral tendo a mesma sido colocada por técnica em “paraquedas” por via transuretral “inlay”, sendo que as agulhas foram exteriorizadas pelo corpo esponjoso e Dartos. Cada braço destes fios de sutura foi puxado simultaneamente e fixado ao braço mais próximo de outro fio de sutura permitindo o ajuste interno do enxerto de mucosa oral. A extremidade distal da mucosa oral excedente foi aparada no sentido de se acomodar ao neomeato. O “quilting” da mucosa foi feito com a mesma técnica de passagem de fios de sutura por via transuretral e unidos após externalização pelo Dartos com fios vicryl 4/0.

Encerramento da pele de incisão ventral com sutura contínua, fio absorvível 4/0.

Algaliação sonda vesical de silicone, 16 Fr.

**Resultados:** O doente evoluiu favoravelmente no pós-operatório, tendo tido alta no dia seguinte, com remoção da sonda vesical ao sétimo dia pós-operatório. Em consulta de follow-up o doente apresentou-se com melhoria considerável das queixas e do jato urinário com um fluxo

máximo de 19 mL/s e com excelentes resultados estéticos.

**Conclusão:** A uretroplastia com mucosa oral é um procedimento seguro e eficaz nos doentes que não respondem a tratamento conservador da estenose da uretra bulbar.

#### VD 04

#### CLEARPETRA® - URETERORRENOSCOPIA FLEXÍVEL 2.0

*Sofia Mesquita; Frederico Teves; Vítor Cavadas*

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**Introdução:** A ureterorrenoscopia flexível representa uma abordagem minimamente invasiva frequentemente utilizada para o tratamento de cálculos renais. A sua eficácia deve-se ao progressivo desenvolvimento tecnológico dos ureterorrenoscópios, fibras laser e cestas extratoras, bem como o refinamento da técnica e o recurso a bainhas ureterais.

As bainhas ureterais permitem o fácil e repetido acesso ao sistema excretor, reduzem a pressão intrarrenal durante a irrigação, melhoram a drenagem e visibilidade do procedimento.

O sistema ClearPetra combina a utilidade das bainhas ureterais com uma dinâmica de fluxo contínuo que permite a extração mais eficiente de fragmentos. Este sistema permite reduzir a pressão intrarrenal, a retropulção e melhorar o campo visual, podendo reduzir assim o tempo operatório. A irrigação contínua de alto fluxo e o efeito de vácuo criado possibilita a extração dos fragmentos.

**Métodos:** Doente do sexo feminino encaminhada para a consulta de Urologia por litíase ureteral na sequência de episódio de cólica renal direita em janeiro de 2023. A radiografia renovesical mostrava dois cálculos de 10x10mm e 9x7mm no ureter proximal e um de 15x5mm no ureter distal. A tomografia computadorizada evidenciava

ureterohidronefrose direita condicionada por três cálculos, dois na junção uretero-piélica e um no ureter distal com cerca de 1000 Unidades de Hounsfield. Foi submetida a litotricia extracorporeal por ondas de choque, no entanto, sem sucesso. Foi então posteriormente proposta para ureterorenoscopia flexível com litotricia com *Hybrid Thulium Laser* (HTL).

**Resultados:** Procedeu-se inicialmente a introdução de ureterorenoscópio (URS) semirrígido 7F com visualização de cálculo no ureter pélvico e fragmentação do mesmo com fibra laser HTL 270 micra e lavagem de fragmentos para a bexiga. Progrediu-se o URS até ao ureter proximal com identificação de cálculos impactados e lavagem com migração dos mesmos para o bacinete. Posteriormente, introduziu-se bainha ureteral 11/13F, 40cm, Clear Petra, até ao bacinete e introdução de URS flexível (fURS) com visualização dos cálculos ao nível do grupo calicial inferior. Procedeu-se a fragmentação dos cálculos e extração dos fragmentos com aspiração através da bainha ureteral. A aspiração dos fragmentos é conseguida através da irrigação contínua pelo canal de trabalho do fURS com fluxo de 50-100mL/min (pressão de irrigação de 150mmHg) e aspiração contínua por porta lateral da própria bainha ureteral (pressão de aspiração de 150mmHg). Por fim, cateterização ureteral retrógrada com cateter duplo J 6F, 26cm sob controlo fluoroscópico. O procedimento teve a duração de 85 minutos. O tempo de litotricia foi de 19 minutos e a energia utilizada foi de 26043J. A doente teve alta, assintomática, no 2º dia de pós-operatório.

**Conclusões:** A ureterorenoscopia flexível com recurso à bainha ureteral ClearPetra permite aumentar as taxas de *stone-free* do procedimento, reduzir as complicações pela diminuição da pressão intrarrenal e reduzir os custos associados pela eficácia na extração de fragmentos sem necessidade de utilizar acessórios como cestas

extratoras.

## VD 05

### DRUG-COATED BALLOON FOR URETHRAL STRICTURES - STEP-BY-STEP & OUR INITIAL EXPERIENCE

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**Introduction:** Urethral stricture is a recurrent disease with a challenging management. One of the most recent treatment options for this condition is the use of a paclitaxel drug-coated balloon (Optilume®) for stricture dilation. Paclitaxel is an antiproliferative drug with fibrosis inhibition properties, which is already used in endovascular procedures.

**Objective:** To present a video describing our step-by-step technique for urethral balloon dilation and our initial experience.

**Results:** Eighteen patients were submitted to 30Fr paclitaxel drug-coated balloon dilation in a single hospital between July 2022 and August 2023. Among them, only two patients were female, and the median age was 66 years (IQR 63-75.25). All patients were discharged on the first postoperative day and had their urethral catheter removed after a median of 5 days. The median pre-operative Qmax was 6 mL/s (IQR 3.7-8.3) and the median post-operative Qmax at 1 month was 10.5 mL/s (IQR 7.1-15.9). The mean difference between pre and post-operative Qmax was 4.4, with statistically significant differences by the Wilcoxon test ( $p=0.002$ ). Importantly, all patients had negligible post-void residue after the surgery and reported subjective improvement in urinary symptoms. Six patients (33.3%) experienced stricture relapse, after a median of 7 months (IQR 3.75-9). It is noteworthy that most of these

patients had multiple strictures, one of which was dilated with the drug-coated balloon and the other mechanically. This might have contributed to the observed recurrence of symptoms. No postoperative complications were reported.

**Conclusion:** Paclitaxel drug-coated balloon dilation is a simple procedure with good results in our patients with recurrent urethral short strictures that have failed previous procedures and should be considered one of the treatment options in this setting.

## VD 06

### TRANSURETHRAL RESECTION OF PROSTATE (TURP) FOR DESOBSTRUCTION OF DILATATED PROSTATIC ECTOPIC URETER

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**Introduction/Objective:** Ectopic ureters and ureterocele are distinct entities but they share many common features and developmental pathways, with subtle variances that cause different appearances. Thus, since its clinical management continues to be challenging, we aim to demonstrate the feasibility and safety of a minimally invasive approach for desobstruction of dilated prostatic ectopic ureter.

**Methods:** Intraoperative cystoscopy revealed orthotopic right and left ureteral orifices but no ureterocele as was initially thought. An ectopic ureteral orifice was found above the verumontanum and another on the left part of the prostatic urethra near the bladder neck. Then, ectopic ureters catheterization confirms a bilateral complete duplicated system. After that, we proceed with TURP to desobstruct the dilated right ectopic ureter.

**Results:** A 39-year-old male with no relevant medical history was referred to urology in 2018 with lower urinary tract

symptoms and a large renal cyst on abdominal ultrasonography. He reports no urinary infections or pain. The renal function was normal. CT urogram shows a right kidney (RK) with complete pyeloureteral duplication, upper renal pole atrophy with excretory system ectasia and a supposed ureterocele. Lower pole was normal. The left kidney (LK) had normal parenchyma and no pyelocaliceal dilatation. Renogram showed RK with functional exclusion of the upper component and normal lower renal component with only mild pelvis stasis (RK 25.6%; LK 74.4%). After 5 years of observational management and a risk-benefit discussion, the patient was proposed for transurethral incision of ureterocele to correct the obstruction and preserve RK lower pole function. Postoperative period was uneventful. At 1 month, the patient complains of weaker stream and right iliac fossa pain with voiding, but at 2 months, no symptoms. He denied urinary tract infections or urgency/urinary incontinence. Postoperative retrograde cystography and CT urogram demonstrate right vesicoureteral reflux and no bilateral ureterohydronephrosis. Renogram showed significant improvement in renal differential function (RK 37%; LK 63%). **Conclusions:** With this clinical case, we intend to demonstrate the rarity of this clinical entity and to show a minimally invasive procedure to relieve a very dilated ectopic ureter improving kidney function without a significant increase in morbidity. However, it is important to discuss with the patient the risk of vesicoureteral reflux, infections, and the need for more invasive surgery.

## VD 07

### KULKARNI ORAL MUCOSAL GRAFT URETHROPLASTY - CASE REPORT OF PANURETHRAL STRICTURE

*João Pedro Chambino; Miguel Miranda; Joana Rodrigues; Miguel Fernandes; Maria Castilho; Filipe Lopes; André Ye; João Melo; Anatoliy Sandul; José Palma Dos Reis*  
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**Introduction:** Urethral stricture disease is a common and challenging urological condition, being the anterior urethra most frequently affected (92.2%) in particular the bulbar urethra (46.9%).

There are multiple etiologies for the origin of urethral strictures: Post-infectious, inflammatory, external urethral trauma, iatrogenic urethral injuries, failure in hypospadias correction, congenital or idiopathic. Urethritis due to sexually transmitted infection in particular gonorrhoea was a major cause of urethral strictures in well-resourced countries (40% of all cases). Urethroplasty plays an essential role being the preferred approach for the treatment of long strictures (>4cm). Numerous surgical techniques have been described; however, it is well-established that in cases of long strictures, primary excision and anastomosis is not possible leading to a decreased patency rate and increased morbidity. Currently, surgical techniques involving grafts or flaps are preferred. We present a one-stage Kulkarnii oral mucosal graft urethroplasty technique, previously described as a perineal approach with invagination of the penis and one-sided urethral dissection. The overall patency rate was 83.7% with a mean stricture length of 14 cm.

**Objectives:** To report a clinical case and surgical approach, on video, of a patient with post-infectious panurethral urethral stricture.

**Material & Methods:** We present a case of a 43-year-old male post-infectious urethral stricture (2015), previously submitted to

Urethral dilatation and DVIU (direct vision internal urethrotomy) in 2021. In November of 2022 he developed acute urinary retention with subsequent need for suprapubic cystostomy. Retrograde urethrogram showed a 15cm panurethral urethral stricture. Patient was unable to perform a voiding cystourethrography. Considering the length and recurrent nature of the stricture, urethroplasty with a buccal mucosal graft was proposed.

**Results:** The patient was positioned in lithotomy and a perineal incision was performed followed by dissection of the bulbar and penile urethra. After exposing the urethra and spongiosum, a longitudinal incision was made in it, exposing the previously placed catheter. The urethra was identified with landmark sutures, and the caliber of the urethra was tested with 22Ch Beniqué, passing at the level of the end of the proximal urethra, but requiring widening of the end of the distal urethra and meatotomy. Three buccal mucosa grafts were removed after measuring 15 cm in size of the stenotic urethral region. Meatoplasty with buccal mucosa graft was performed with PDS 5-0 suture, with terminal fixation of the graft in the penile urethra. Fixation of the buccal mucosal graft Dorsal lateral Onlay of the remaining graft with PDS 5-0 suture. Tubularization was performed with a 14Ch Silastic catheter followed by reconstruction of the left corpus spongiosum and Buck's fascia. Bladder catheter was removed at 5 weeks post-operative and cystostomy catheter was closed and removed at 6 and 7 weeks, respectively. Urethrogram before catheter removal did not show contrast extravasation. Urofluxometry at 7 weeks revealed a peak flow rate of 17,6mL/s for a voiding volume of 175mL and a post-void residual (PVR) volume of 34mL. Presently, the patient has resumed sexual activity with good erectile function, reporting, however, retrograde ejaculation without other

symptoms.

**Conclusions:** Kulkarni oral mucosal graft urethroplasty is a safe and effective procedure. The single-stage procedure has a higher patency rate compared and offers a better quality of life in younger patients. This technique is particularly useful in extensive urethral strictures. However, there is no consensus regarding the optimal technique therefore the preferred approach should take in consideration the center's surgical practice and expertise of the surgeon.

## VD 08

### NEFRECTOMIA PARCIAL ROBÓTICA COM O SISTEMA HUGO RAS EM RIM EM FERRADURA

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**Introdução:** O rim em ferradura é uma das malformações congénitas de fusão renal mais comum. Está presente em 0.15-0.25% da população e caracteriza-se por alterações anatómicas como ectopia e alterações vasculares. Estima-se que a incidência de carcinoma de células renais em rins em ferradura seja semelhante à de rins normais. O planeamento cirúrgico com reconstrução da vascularização renal em rins com alterações anatómicas de fusão é essencial para o sucesso da intervenção.

**Métodos:** Trata-se de uma doente do sexo feminino com 47 anos, com antecedentes de Diabetes Mellitus tipo 2 não insulino-tratada e Obesidade grau I, enviada à consulta de Urologia por achado incidental de lesão renal com 3cm em tomografia computadorizada (TC) abdominopélvica realizada em contexto de reavaliação de hepatomegalia e esteatose hepática. A TC mostrava: "rim em ferradura com lesão expansiva que capta contraste de forma heterogénea com cerca de 32mm de diâmetro axial no

polo inferior do hemi-rim esquerdo". Foi proposta para nefrectomia parcial assistida por Robot com o sistema Hugo™ RAS.

**Resultados:** Posicionou-se a doente em decúbito lateral direito em semi-flexão do tronco.

Atendendo à anatomia do rim e localização do tumor, optou-se pela colocação de 3 trocares em posição mais inferior e medial relativamente à distribuição clássica da nefrectomia parcial assistida por robot, mantendo-se a posição e angulação dos braços. Revendo as imagens da TC e reconstrução tridimensional da anatomia vascular, verificou-se a presença de uma artéria e uma veia principais e um ramo da artéria ilíaca comum em estreita relação com o tumor. Procedeu-se a mobilização medial do cólon descendente com identificação do polo inferior do hemi-rim esquerdo. Optou-se por disseção do hilo renal e identificação e referenciação da artéria renal principal e, posteriormente, do ramo da artéria ilíaca comum. Após identificação do tumor no polo inferior do hemi-rim esquerdo, incisão da fáscia de Gerota próximo do tumor e delimitação do mesmo. Optou-se por clampar o ramo da artéria ilíaca comum. Após, enucleorressecção do tumor. Por fim, sutura do leito tumoral com V-Loc 3/0 e da cápsula com V-Loc 2/0. O tempo de isquemia foi de 13 minutos. O procedimento decorreu sem intercorrências. Os tempos total de cirurgia e de consola foram de 138 e 55 minutos, respetivamente. As perdas estimadas foram de 100cc.

**Conclusões:** A abordagem cirúrgica de rins em ferradura permanece um desafio atendendo às alterações anatómicas associadas. A caracterização da anatomia vascular através de uma reconstrução tridimensional permite um planeamento cirúrgico mais eficaz. A nefrectomia parcial robótica é uma abordagem segura e exequível no tratamento de tumores em doentes com rins em ferradura.

## VD 09

### RENOSCOPIA EX-VIVO COM LITOFRAGMENTAÇÃO LASER YAG:HO NUM RIM DE DADOR EM PARAGEM CARDIOCIRCULATÓRIA

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**Introdução:** A prevalência da litíase renal nos dadores renais não está totalmente esclarecida, podendo chegar até aos 5%. A abordagem da litíase nos dadores em morte cerebral (DBD) ou em paragem cardiocirculatória (DCD) ainda não está totalmente definida. No entanto, a abordagem com endourologia ex-vivo parece ser uma técnica eficaz e segura realizada previamente ao transplante.

**Objetivos:** Descrição da experiência neste caso clínico onde se abordou por endourologia ex-vivo a litíase num dador DCD.

**Material e métodos:** Descrição de caso clínico, com acesso dos registos clínicos informáticos do doente. Gravação vídeo de procedimento cirúrgico e registo fotográfico do mesmo.

**Resultados:** O caso inicia-se com a admissão na sala de emergência de um doente de 62 anos, com antecedentes de hipertensão arterial, tabagismo e psoríase. O doente apresentou um quadro de precordialgia, abordado pela emergência extra-hospitalar, tendo entrado em paragem cardiorrespiratória presenciada. Foram iniciadas manobras de Suporte avançado de Vida, com compressões extrínsecas com LUCAS. Manteve-se em assistolia apesar das manobras instituídas, tendo sido canulado na sala de emergência para início de ECMO (extracorporeal membrane oxygenation) e integrado no programa de dadores em paragem cardiorrespiratória na instituição. Como protocolo, realizou ecografia abdominal com achados de relevo de litíase de 25 mm no seio renal esquerdo.

Após seleção de dador compatível, foi

realizada um renoscopia com litofragmentação laser YAG:Ho; foi utilizado um renoscópio Olympus com um sistema de irrigação salina com bomba manual. O rim foi mantido na solução de preservação arrefecida com gelo. Intra-operatoriamente foi identificado o foco litíásico de 25 mm e fragmentado com laser YAG:Ho em fragmentos <4mm. Após o procedimento o rim foi implantado no recetor, sem intercorrências. No pós-operatório o rim apresentou função imediata, tendo o recetor tido alta passado 4 dias, sem necessidade de hemodiálise. O recetor realizou uma TC abdomino-pélvica no internamento, apresentando apenas litíase residual milimétrica e sem complicações. Na avaliação em consulta aos 3 meses, o recetor apresentava-se com função renal normal, com Creatinina sérica de 0.92 mg/dl e com ecografia a documentar ausência de litíase.

**Discussão/Conclusões:** A abordagem da litíase nos dadores DBD e DCD não está totalmente estudada. No entanto, as técnicas de endourologia aparentam ser uma excelente escolha para tratamento da litíase nestas situações, permitindo utilizar com segurança órgãos que poderiam vir a ser descartados, alargando assim o leque de rins disponíveis para transplantação.

## VD 10

### ECIRS DE CÁLCULO CORALIFORME EM DOENTE COM RIM ÚNICO E CISTINÚRIA

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**Introdução:** Endoscopic Combined Intra-renal Surgery (ECIRS) é uma técnica cirúrgica combinada que alia abordagem percutânea com endoscopia retrógrada com ureterorenoscópio flexível. Alguns estudos demonstram superioridade do ECIRS quando comparado com nefrolitotomia

percutânea, com menor taxa de complicações e maior taxa de stone free. A cistinúria é uma patologia genética caracterizada por uma diminuição da reabsorção de cistina a nível dos túbulos renais proximais, com consequente aumento de risco de precipitação e formação de cálculos urinários.

**Métodos:** Doente do sexo masculino de 42 anos, enviado à consulta de urologia por litíase renal no contexto de cistinúria. Apresentou o primeiro episódio de cólica renal aos 14 anos de idade e aos 24 anos foi submetido a nefrectomia esquerda por exclusão funcional do rim. Apresentava radiografia renovesical com cálculo coraliforme com cerca de 55 mm de maior eixo. Atendendo às características do cálculo, foi proposta realização de ECIRS.

**Resultado:** O procedimento foi realizado na posição de Galdakao. Introdução de cistoscópio rígido com introdução de cateter ureteral no bacinete, realizada injeção de contraste com visualização do cálculo coraliforme e dos cálices renais. Foi realizada uma punção a nível do cálice médio sob controlo fluoroscópio. Efetuada dilatação sobre o fio-guia com dilatador 10F, seguido de dilatação com balão de alta pressão até 16 atm e passagem de bainha de Amplatz 24F. Introdução de nefroscópio 22F através da bainha com visualização do sistema excretor, com identificação e localização do cálculo. Efetuada fragmentação do cálculo com litotriptor Trilogy e remoção dos fragmentos com efeito vacuum cleaner. Introdução do ureterorenoscópio flexível e mobilização dos cálculos com basket para o bacinete e exteriorização pela bainha. Impossibilidade de mobilização de pequenos fragmentos de 2-3 mm do grupo calicial superior pela presença de infundíbulo longo. Colocado cateter duplo J 6F/26cm por via retrógrada. Análise microbiológica de urina e fragmentos de cálculo. O doente ficou internado durante 6 dias sem intercorrências, com hemoglobina está-

vel e função renal normalizada. Removeu cateter duplo J após 12 dias. Ao fim de 4 meses de seguimento, o doente encontra-se assintomático. Em TC de controlo de agosto de 2023, verificou-se a apresenta cálculos dispersos pelo rim, tendo o maior 10 mm a nível do grupo calicial superior.

**Conclusão:** A presença de cálculos complexos, especialmente em doentes com patologia de base importante (como rim único ou presença de cistinúria) podem eficazmente e de forma segura ser tratados através de ECIRS.

## VD 11

### LAPAROSCOPIC APPENDICOVESICOSTOMY BY MITROFANOFF PRINCIPLE: TECHNIQUE OF A MINIMALLY INVASIVE CONTINENT CUTANEOUS URINARY DIVERSION IN A NEUROGENIC PATIENT

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**Introduction:** Clean intermittent catheterization (CIC) is one of the main tools for neurogenic lower urinary tract dysfunction management, as it provides adequate bladder emptying and protects the upper urinary tract from high pressures, hence preventing progressive renal damage. It also lowers the risk of urinary tract infections. Despite its important role, CIC is difficult to perform in various situations: lack of manual dexterity, female wheelchair patients, body habitus, anatomical morbidity due to extensive surgery or psychological problems. For such patients, cutaneous continent urinary diversion (CCUD) is a viable option



for bladder emptying optimization. The cutaneous appendicovesicostomy, initially described by Mitrofanoff, remains one of the most commonly performed CCUD, especially in the pediatric population.

**Objectives:** This work aims to describe the technique of laparoscopic appendicovesicostomy using the Mitrofanoff principle in an adult neurogenic female patient.

**Materials and Methods:** We present a case of a 72 years-old female with multiple sclerosis diagnosed 22 years ago. Disease progression caused mobility restriction with paraparesis and underactive bladder. Cystometry showed a compliant bladder, with adequate capacity and minor leakage secondary to low amplitude detrusor overactivity. Pressure-flow study revealed detrusor underactivity with a high post-void residual volume. Increasing difficulty in CIC caused by wheelchair confinement and motor restraints prompted the proposal for CCUD through a minimally invasive technique.

**Results:** The patient is positioned in lithotomy with slight Trendelenburg. Six ports are placed: one 11mm supraumbilical; another 11mm in the right pararectal line laterally to the umbilicus; and further 4 ports of 5mm, one half-way between the umbilicus and the pubic symphysis, one on the right pararectal line and two medial to the left and right anterior superior iliac spines. The procedure begins with the identification of the appendix and its length and caliber assessment. The appendix should have at least 5cm and be capable of accommodating a minimum 10–12 Ch catheter. The right colon is mobilized, and the appendix is sectioned at its base after placing an absorbable ligation. A silicone 14Ch catheter is introduced in the appendix and the mesoappendix is dissected to achieve adequate mobilization without compromising the vascularity. The bladder is then dissected from the abdominal wall. Three straight needle stay sutures are placed at

the dome of the bladder for retraction and exposition of the posterior wall. After bladder suspension, a vertical detrusor incision of 5cm is performed in the posterior midline until the mucosa of the bladder is visualized. The bladder mucosa is then opened approximately 1 cm in length. The appendicovesical anastomosis is performed using a 3/0 absorbable barbed suture, followed by 3 interrupted absorbable monofilament stitches to create a Lich Gregoir anti-reflux subserous tunnel. Finally, the other end of the appendiceal conduit is brought to the skin surface through an umbilical port where a catheterizable stoma is created. Operative time was 135 minutes and minimal blood loss was recorded. The patient was discharged at day 4 post-operative without complications. The stoma catheter was removed two weeks after the surgery ensuring that the patient could catheterize the stoma easily. Currently, the patient has gained significant autonomy and increased quality of life. Occasional detrusor overactivity is managed with anticholinergics.

**Discussion/Conclusions:** Despite being challenging, laparoscopic Mitrofanoff appendicovesicostomy is a feasible and safe procedure when performed by experienced surgeons. This technique offers a significant increment in autonomy and better quality of life, while minimizing the risk of upper urinary tract deterioration. The minimally invasive technique allows for a better post-operative recovery with less pain, shorter hospital stay and better aesthetic results.

## VD 12

### ROBOT-ASSISTED MANAGEMENT OF ZINNER'S SYNDROME: SEMINAL VESICLE CYST MARSUPIALIZATION WITH THE HUGO RAS SYSTEM

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**Introduction:** Zinner Syndrome is a congenital anomaly of the distal Wolffian duct. This embryologic defect leads to unilateral renal agenesis, ipsilateral seminal vesicle cyst, and ejaculatory duct obstruction. Most patients are asymptomatic and do not need any treatment. For symptomatic cases, based on case reports, only surgical removal of the cyst and seminal vesicle seems to be effective.

**Objectives:** To report a case of robot-assisted laparoscopic marsupialization of a seminal vesicle cyst in a patient with Zinner Syndrome with the HUGO Ras system.

**Results:** We present the clinical case of a 23-year-old man who was followed in pediatric nephrology consultation for right renal agenesis. The patient was totally asymptomatic. Pelvic MRI showed a well-delimited exophytic cystic formation near the prostate base, 62x65x64 mm in size, compatible with a seminal vesicle cyst. During patient follow-up another MRI was requested, showing the same cyst with mass effect on the left pelvic ureter and ectasia of the ureter upstream. To preserve renal function in a patient with a single kidney, we decided to use robot-assisted laparoscopy to marsupialize the cyst and resect the right seminal vesicle completely. Our technique went through the following main steps: 1 placement of five trocars according to standard pelvic surgery; 2 opening of the parietal peritoneum at the level of the Douglas end-of-sac; 3 dissection of the cyst; 4 preparation and dissection of vas deferens ending in the cyst; 5 identi-

fication of the left ureter and apparent residuals of the right ureter; 6 opening of the cyst and its drainage; 7 fulguration of the remaining mucosa; 8 hemostasis; 9 drain placement; 10 closure after removing surgical specimen.

The total operative time was 120 minutes; the patient was discharged on day 3 after surgery without a Foley catheter.

**Conclusion.** In most cases, patients with Zinner's syndrome are indicated for surgery when they are symptomatic. We present a case of an asymptomatic patient with a seminal vesicle cyst that caused ectasia of the ipsilateral ureter. Surgical resection of the cyst was the only possible approach to preserve renal function. Our surgical technique with the HUGO Ras system was safe and effective. Minimally invasive approaches like conventional laparoscopy or robotic-assisted laparoscopy should currently be considered the surgical gold standard.

## VD 13

### LAPAROSCOPIC SUPRACERVICAL HYSTERECTOMY WITH SACROCOLPOPEXY

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*Hospital de Braga*

**Introduction and objectives:** Pelvic organ prolapse (POP) is a common condition that can significantly impact women's life. There are many surgical options for its correction, being sacrocolpopexy (SC) one of the main, with innumerable variant techniques. Its basic principle is the suspension of the vaginal vault to the sacral anterior longitudinal ligament (ALL), using a prosthesis. Laparoscopy allows for enhanced dissection (mostly posteriorly) and deep mesh fixation. So, anterior and posterior meshes, often Y-shaped, became

regular in laparoscopic SC (LSC). Still, some surgical steps details remain on debate: extent of plane's dissection, sites and mode of mesh fixation, mesh tension, and performance of concomitant procedures, such as hysterectomy (HT), and its type. Thus, we aim to present our step-by-step approach for a laparoscopic supracervical hysterectomy with sacrocolpopexy.

**Material and methods:** A healthy 66-year-old woman, G2P2 eutocic deliveries, presented with a vaginal bulge feeling. A grade 3 (Baden–Walker system) POP of anterior and middle compartments was diagnosed, and LSC was proposed. We use 2 10mm and 3 5mm trocars, Optilene® Mesh (30x30cm), 2-0 non-absorbable multifilament and 3-0 barbed unidirectional sutures, bipolar energy and harmonic scalpel. With patient in steep Trendelenburg, place trocars in a fan-arranged manner (above the umbilicus, lateral to the rectus muscle just below the umbilicus, and at lower quadrants, lateral to inferior epigastric vessels).

Start by a supracervical HT. Then, anterior dissection 7cm into the vesicovaginal space, followed by posterior dissection 9cm into the rectovaginal space. Afterwards, expose the sacral promontory and ALL at the right side of midline, avoiding pre- and middle- sacral vessels. Prolong peritoneal incision to the pelvis, keeping caution with the right ureter. From the regular polypropylene mesh, create a Y-shaped one, and fixate it with 2-0 non-absorbable simple suture in anterior and posterior vaginal walls, and then to the ALL, with adequate tension. Close peritoneum over the mesh, with 3-0 barbed running suture. Morcellate the specimen and retrieve it from a 10mm trocar incision.

**Results:** Operative time was 3 hours. Without complications, the patient was discharged after 2 days, and remains asymptomatic after 9 months.

**Conclusion:** We consider that the supra-

cervical HT can reduce the risk of recurrent prolapse (vs. no HT) and of mesh exposure (vs. total HT), while also simplifying the SC, thus, ideal for post-menopausal women. A pre-fabricated Y-shaped mesh is not mandatory. We can personally create our own from a regular mesh. Similarly, specimen “morcellation” can be made without a specific device, as shown. LSC is a feasible, effective and safe procedure for POP treatment, with concomitant supracervical HT in selected women. Key surgical steps are adequate: planes' dissection, mesh tension, fixation, and retroperitonealization.

#### VD 14

### ROBOTIC-ASSISTED ARTIFICIAL URINARY SPHINCTER IMPLANTATION IN A FEMALE PATIENT

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**Introduction:** Urinary incontinence is a prevalent medical condition that significantly affects the quality of life in both men and women. While artificial urinary sphincter (AUS) implantation was initially explored as a surgical option for female urinary incontinence, it fell out of favor due to various limitations. Advances in surgical techniques, particularly in laparoscopic and robotic approaches, have revitalized the consideration of AUS implantation in females with stress urinary incontinence, primarily linked to intrinsic sphincteric insufficiency. This surgical video presents a comprehensive demonstration of a robot-assisted procedure for implanting an AUS in a female patient, emphasizing its potential advantages.

**Objective:** The objective of this presentation is to exhibit a surgical video showcasing the robot-assisted implantation of an artificial urinary sphincter in a female patient dealing with stress urinary incon-

tinence.

**Methods:** The surgical video meticulously illustrates the sequential stages of robot-assisted AUS implantation in a female patient grappling with severe stress urinary incontinence. The procedure is executed employing the da Vinci robotic surgical system. The video encompasses crucial aspects including preoperative preparation, patient positioning, and trocar placement, with a focused highlight on the pivotal surgical steps.

**Results:** The surgical video offers an intricate visual walkthrough of the critical procedural facets involved in robot-assisted AUS implantation. This encompasses meticulous exploration of pelvic anatomy, identification of the endopelvic fascia, creation of a precise dissection plane over the vaginal wall, encircling cuff placement around the urethra, and strategic pump emplacement within the labia majora. The discernible merits of the robotic approach manifest in heightened dexterity and precision exhibited by the robotic instruments. This facilitates scrupulous dissection, precise suturing, and optimal positioning of the AUS device.

**Discussion/Conclusion:** Robot-assisted surgery introduces a spectrum of potential benefits in the context of female AUS implantation, surpassing conventional open or laparoscopic methods. The enhanced ergonomics and superior visualization intrinsic to the robotic platform empower adept dissection within the intricate landscape of pelvic anatomy. Consequently, there exists a potential reduction in the jeopardy of injury to vital structures such as the bladder neck and vaginal wall. With mounting experience in female AUS implantation, this procedure expands the horizons for managing stress urinary incontinence in female patients. In cases refractory to alternative interventions, robot-assisted artificial urinary sphincter implantation emerges as an advanced ther-

apeutic recourse, particularly for those afflicted by intrinsic sphincter deficiency. Cumulative evidence from expansive case series underscores favorable outcomes, cementing the role of this procedure as a closing avenue of invasive treatment.

## VD 15

### LAPAROSCOPIC CONTINENT URINARY DIVERSION: A MINIMALLY INVASIVE TECHNIQUE OF YANG-MONTI CATHETERIZABLE CHANNEL

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**Introduction:** Yang-Monti catheterizable channel is a continent urinary diversion technique described as an effective treatment option in neurogenic lower urinary tract dysfunction (NLUTD) patients unable to perform clean intermittent catheterization (CIC) through the urethra. 1 Due to its significant complication rates and due to being an invasive procedure, it is rarely a first line treatment of choice. So far, isolated cases or short series of laparoscopic and robotic techniques have been published, most of them in children. 2 The advantages of performing this minimally procedure include decreased intraoperative bleeding, postoperative pain, quicker recovery with shorter hospitalization length and better cosmetic results. (2,3)

**Objectives:** The objective of this work is to describe the technique of laparoscopic Yang-Monti continent derivation in adults with NLUTD.

**Material e methods:** We present a case of a 50 years-old female with history of

acute coronary syndrome and subsequent T4 medullary ischemia in 2021. Spinal cord injury resulted in paraplegia and an underactive bladder with the need of CIC 4 times per day. Urodynamics showed a cystometric capacity over 500ml, normal compliance, absent bladder sensitivity and an acontractile detrusor. She had difficulty in transfer and poor autonomy. Therefore, in 2023, she was proposed for a laparoscopic Yang-Monti catheterizable channel. She had been previously submitted to an appendectomy, being thus excluded the possibility of performing a Mitroffanof diversion.

**Results:** The patient was positioned in lithotomy and a bladder catheter was introduced. Pneumoperitoneum was accomplished with Veress needle in Palmer's point. Five ports were placed: one 11mm 2-5cm above the umbilicus for the camera, another 11mm half-way between the umbilicus and the pubic symphysis, and further 3 ports of 5mm, two medial to the left and right anterior superior iliac spines and one in right pararectal line. Initially, bladder dissection is performed to achieve maximum mobility. Three stay sutures were percutaneously placed on the bladder dome to accomplish its suspension and a good exposition of the posterior aspect of the bladder. Ileum was inspected and adequate mesentery length was assured. The most mobile segment was marked with a suture. A 5cm midline vertical detrusor incision is made posteriorly until the mucosa is visualized. The bladder mucosa is then opened approximately 1 cm in length. An arciform infraumbilical incision allows the exteriorization and subsequent section of the 4cm previously marked ileum segment. The distal 20cm of terminal ileum were properly preserved. An end-to-end ileal anastomosis was performed with running 3/0 absorbable suture. The ileal segment was detubularized and after retubularized and calibrated over a 12Ch vesi-

cal catheter. The catheter was fixed to the conduit with a resorbable suture, to avoid accidental displacement. An intracorporeal ileovesical anastomosis is then undertaken with a 3/0 barbed suture, followed by 3 interrupted absorbable monofilament stiches to create a Lich Gregoir anti-reflux subserous tunnel. Finally, the conduit was exteriorized through an umbilical port and a catheterizable stoma was created. The operative time was 150 minutes and reported blood loss was less than 50cc. The patient was discharged after 5 days. The stoma catheter was left indwelling for 3 weeks and a cystogram was performed at removal. No urinary leakage was shown. So far, the patient is very satisfied, with increased autonomy and ease of self-catheterization without incontinence.

**Conclusion:** Laparoscopic Yang-Monti continent derivation is a challenging, yet feasible and safe procedure in the adult population. This procedure offers a significant increase in autonomy, further protection of the upper urinary tract with high satisfaction rates, reduced hospitalization, peri-operative pain and good cosmetic results.

## VD 16

### PELVIC ORGAN-SPARING ROBOTIC RADICAL CYSTECTOMY ON FEMALE

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*1 Hospital Prof. Doutor Fernando Fonseca; 2 Hospital CUF Tejo*

**Introduction & Objectives:** Radical cystectomy (RC) is the gold standard treatment for muscle-invasive bladder cancer (MIBC). This surgery, on females, includes the removal of the bladder, urethra, distal ureters and anterior vaginal wall, uterus, and regional lymph nodes. Therefore, it is associated with important morbidity and mortality with obvious consequences for female patients. Surgical approaches aim-

ing to prevent such morbidity and negative functional outcomes with preservation of the ovaries, uterus, and anterior vaginal wall were described. Our objective is to present a video of a pelvic organ-sparing radical cystectomy (POSRC) on a female patient.

**Materials & Methods:** This video was recorded with da Xi DaVinci's surgical system, Intuitive.

**Results:** The evidence of the POSRC has low quality and is limited with only one systematic review from previous retrospective studies/series published. The results published were oncological similar but functional outcomes were better in the POSRC group. In this study patient selection was vital, because POSRC should only be performed in T2 patients, and patient counseling was recommended. However, recently, there were reports of more advanced T-staged disease and histological variants that showed oncological safety. Despite this, caution must be taken when interpreting these results. Functional outcome advantages are several on the female patients. In premenopausal women, hormonal homeostasis is maintained by not removing the ovaries, with a better cardiovascular safety profile, and prevention of the development of osteoporosis and cognitive impairment. In patients with a neobladder, the preservation of the uterus ensures better neobladder support with the possible benefit of reducing the risk of urinary retention. The risk for postoperative pelvic prolapses rises with the removal of the uterus and therefore, its preservation can prevent it. The preservation of the vagina has a relevant impact on sexual satisfaction and postoperative function since the anterior resections shorten it considerably.

**Conclusions:** The POSRC is a valid and available approach in selected patients with MIBC, ideally T2 patients, associated with better functional outcomes. The re-

sults have low quality but they suggest it to be oncological safe. Patient counseling is essential when concerning pelvic organ preservation, in the preoperative management of MIBC.

## VD 17

### LAPAROSCOPIC MODIFIED LICH GREGOIR

*Bernardo Lobão Teixeira; Diogo Gil Sousa1; Paulo Príncipe*

*Centro Hospitalar do Porto, EPE / Hospital Geral de Santo António*

**INTRODUCTION AND OBJECTIVES:** Vesicoureteral reflux can result in urinary tract infections and renal damage. Various techniques have been described for treating vesicoureteral reflux, encompassing both endoscopic and open/laparoscopic approaches. The Lich-Gregoir technique outlines an extravesical ureteral reimplantation with the creation of an antireflux intramural tunnel. However, performing this technique becomes more intricate when dealing with a duplicated ureter. A modified Lich-Gregoir technique has been proposed to facilitate the creation of the intramural tunnel without the need to transect the ureter. Our objective is to elucidate this technique using a laparoscopic approach.

**METHODS:** We present the case of a 23-year-old female with bilateral duplicated ureters and a history of vesicoureteral reflux. She underwent endoscopic treatment with bulking agents on five occasions. Despite this, she experienced recurrent urinary tract infections, notably including right-sided pyelonephritis. Cystography confirmed reflux into the lower renal moiety, with the bulking agents visible on CT scans. A laparoscopic modified Lich-Gregoir procedure was proposed to the patient. The primary surgical steps are presented in video format.

**RESULTS:** We present a surgical video demonstrating the laparoscopic modified

Lich-Gregoir technique. The pre-operative anatomical planning, encompassing cystography and CT scans, is showcased. The surgery employed three 5mm ports and a 12mm port for the camera. The ureter was identified in its pelvic section and dissected caudally toward the bladder, facilitated by an ultrasonic device. The use of a vessel loop secured with a Hem-o-Lock provided traction and facilitated ureter mobilization without trauma. To aid in posterior ureteral dissection and intramural tunnel creation, the bladder was suspended using transabdominal sutures. Creation of the intramural tunnel revealed the herniated bladder mucosa. Detrusorraphy was performed over the ureter using 2.0 Vicryl, completing the antireflux mechanism. The surgical and post-operative phases transpired without complications, and the patient has remained free from urinary tract infections to date.

**CONCLUSIONS:** The laparoscopic Lich-Gregoir Technique offers a secure approach for addressing refractory vesico-ureteral reflux in duplicated ureters. This non-transecting technique enables expedited recovery without necessitating a ureteral catheter.

## VD 18

### LAPAROSCOPIC TRANSPERITONEAL PARTIAL URETERECTOMY WITH URETEROURETEROSTOMY FOR THE MANAGEMENT OF BENIGN MID-URETER STRICTURE

*Ana Sofia Araújo; Ricardo Rodrigues; Catarina Tinoco; Andreia Cardoso; Mariana Capinha; Luís Pinto; Vera Marques; João Torres; Paulo Mota*  
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**Introduction:** There are multiple common causes for ureteral stricture including ischemia, surgical and nonsurgical trauma, periureteral fibrosis, malignancy, and congenital factors. Proper evaluation and treatment are essential to improve symp-

oms and preserve renal function. Since endoscopic treatments are only successful for shorter strictures, here, we aim to demonstrate the feasibility and safety of a laparoscopic transperitoneal partial ureterectomy with ureteroureterostomy for the management of 2cm benign mid-ureter stricture.

**Materials and methods:** First, the procedure started with a ureterorenoscopy (URS) that confirmed the stenosis and a straight ureteral catheter was left at this level. Second, the patient was positioned in a right lateral decubitus. Then, a 10mm umbilical trocar for the camera was introduced and two additional trocars of 10mm and 5 mm were also introduced under vision. The procedure started with the release of adhesions and cephalic mobilization of the left colon. After that, the dilated ureter under the peritoneum was identified and then the peritoneum was opened at this level. The straight catheter placed initially was also identified and therefore the stenosis level. Next, a partial ureterectomy of the stenotic ureter and the spatulation of the nondilated ureteral segment were done. The ureteroureterostomy started with the suture and approximation of one aspect of the ureter with a 4/0 vicryl, and after, a stab incision with 3mm needle-holder was introduced to help in performing the anastomosis under a double J catheter. Then the opposite aspect of the ureter was sutured, and finally, the anastomosis could be completed by running these two sutures with interrupted stitches on both sides. The stenotic ureter was removed through a 10mm trocar, and a drain was placed.

**Results:** We present a case of a 40-year-old woman with a past medical history of appendectomy 18 years ago, tubal ligation 4 years ago, and mammoplasty plus abdominoplasty 2 years ago, that was referred to Urology in 2021 with left lumbar pain and ipsilateral ureterohydronephrosis

on CT Urogram. After, the patient was submitted to a diagnostic URS with a retrograde pyelogram which showed a mid-ureter unsuspecting fibrotic stenosis with 2cm, transposable to the 8Fr ureterorenoscope and a very dilated and tortuous upstream ureter with ballooned calyces. So, it was decided to perform a double J catheterization. The lavage ureteral cytology was negative for high-grade urothelial carcinoma. The CT Urogram and the MAG3-reno-gram with the double J catheter revealed no relevant changes and a symmetrical differential renal function. 3 months later the patient underwent a double J catheter removal, and a new CT Urogram was done showing, again, a moderate left ureterohydronephrosis conditioned by obstruction of the mid ureter. So, we proposed the patient for laparoscopic transperitoneal partial ureterectomy with ureteroureterostomy. The total operative time was 145 minutes. The postoperative period was uneventful. The drain was removed, and the patient was discharged on the 2<sup>nd</sup> day postoperative. Pathology results reveal a foreign body of multinucleated giant cells suggestive of nonspecific chronic ureteritis. The double J catheter was removed 6 weeks after surgery. At the 3-month postoperative evaluation, the patient remains with no urinary symptoms and no bilateral ureterohydronephrosis on renal ultrasound. **Conclusions:** Laparoscopic partial ureterectomy with ureteroureterostomy is a feasible, safe, and simple minimally invasive technique option for the management of a 2cm or longer, benign mid-ureter stricture with minimal perioperative morbidity and optimal functional results. Therefore, this technique should be the standard of care for these patients and should be preferred over endoscopic treatments.

## VD 19

### PROSTATIC UTRICLE CYST MARSUPIALIZATION - AN ENDOSCOPIC APPROACH TO AN UNUSUAL CLINICAL ENTITY

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**INTRODUCTION:** The prostatic utricle is a remnant of the Müllerian duct located in the midline of the prostatic urethra. An anomaly in the regular regression process may cause an enlargement of the utricle, commonly known as a prostatic utricle cyst. It is present in up to 1% and 4% of adults and neonates, respectively. It is frequently associated with other urogenital abnormalities. The need for surgical treatment is often reserved for symptomatic patients.

**OBJECTIVES:** To present a surgical treatment option to an unusual clinical entity in our daily practice.

**MATERIAL AND METHODS:** We describe a case report of a patient with a symptomatic prostatic utricle cyst and showcase its endoscopic treatment by doing a transurethral marsupialization.

**RESULTS:** A 25-year-old male, with a past medical history of nocturnal enuresis until the age of 14, presents with symptoms of ejaculatory pain followed by haematospermia, lasting for the past 6 months. The patient denied fever, urethral discharge, LUTS or incontinence and had normal external genitalia. In total three sperm cultures were obtained and the patient was medicated with pathogen directed antibiotic, but with minimal improvement. A kidney and bladder ultrasound was performed showing no major changes. A transrectal prostate ultrasound was also done having shown a complicated prostatic utricle cyst. A pelvic MRI was then performed describing a 21mm complicated prostatic



utricule cyst, with high protein and hemorrhagic content, and an enlarged right seminal vesicle.

He underwent a transurethral marsupialization of the cyst. First, the urethra was thoroughly examined, with a verumontanum slightly elevated in the prostatic urethra. Then, the anterior wall of the cyst was resected using a cutting loop with monopolar energy. An opening to the cyst was made and its contents were drained. The marsupialization was achieved by using a Collins knife allowing greater precision. Upon inspection of the cyst, the inner wall was smooth, with hemorrhagic content and a small stone. It was possible to identify the right ejaculatory duct opening inside the cyst. The procedure was uneventful and the patient was discharged the day after, reporting full recovery of his symptoms.

**DISCUSSION / CONCLUSIONS:** Prostatic utricule cysts are intraprostatic median cysts with a saccular-like structure located at the verumontanum in between the ejaculatory ducts' openings. They result from an incomplete regression of the Müllerian duct system during embryologic development. Hence these cysts are commonly associated with urogenital malformations such as hypospadias. Utricule cysts are found more often in males under 20 years old and have an estimated prevalence of 1-5% in the general population. Patients can present with a wide range of symptoms, like recurrent UTI, hematuria, urinary incontinence, haemospermia or even infertility due to its close relationship with the ejaculatory ducts. Diagnosis is based on clinical presentation and imaging tests such as prostate transrectal ultrasound or pelvic MRI. Surgical treatment should be reserved for symptomatic patients. There are several different approaches described, with no clear consensus on the best technique. There have been reports of endoscopic approaches with transurethral cyst catheterization and aspiration or marsupialization of the cyst. As the risk of recurrence is high, some advocate a more invasive strategy with complete excision of the cyst by abdominal transperitoneal route or combined abdomino-perineal technique. The prostatic utricule cyst is an unusual disorder and should be taken into account in young male patients presenting with urogenital symptoms. Due to the rarity of this disease, defining the most suitable treatment strategy remains challenging and should be adjusted to each patient.

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## VD 20

### **SURGICAL REPAIR OF RECTO-URETHRAL FISTULA WITH GRACILIS FLAP AND URETHROPLASTY WITH BUCCAL MUCOSA**

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*Centro Hospitalar e Universitário de Coimbra / Hospitais da Universidade de Coimbra*

**Introduction:** Recto-urethral fistulas, although rare, have a devastating effect on patients' quality of life. Their incidence has been rising, largely due to the increase in radical prostatectomies performed. As it is a rare pathology with a complex approach, there is no consensus on the best surgical technique.

**Objective:** To expose a step-by-step surgical technique for the surgical repair of a recto-urethral fistula with a Gracilis flap and urethroplasty with jugal mucosa using a transperineal approach.

**Materials and methods:** Surgical repair of a recto-urethral fistula with a Gracilis flap and urethroplasty with jugal mucosa using a transperineal approach.

**Results:** We report the case of a man who underwent an open radical prostatectomy in 2019. In 2021, due to tightening of the anastomosis, he underwent vesi-

co-urethral re-anastomosis and later on a cervicotomy with cervical mitomycin instillation. In 2022, he began suffering from pneumaturia and fecaluria, and was diagnosed with a non-radical rectourethral fistula. The patient immediately underwent urinary diversion with a supra pubic catheter and intestinal diversion with a colostomy. After 10 months, with no urinary complaints, he underwent surgical repair of the fistulous tract. The procedure began with a urethroscopy which identified a stenotic segment of the urethra. A urethroplasty of the bulbous-membranous urethra was then performed with a ventral onlay jugal mucosa graft. The gracilis muscle flap was then identified and mobilized to reinforce and ensure the interposition of well-vascularized tissue between the urethra and rectum. The surgery in question took around 4 hours, with no major complications. The patient was discharged on the third post-operative day. He is currently showing no signs of fistulous recurrence and has no supra pubic catheter or bladder catheter, although the colostomy has not yet been closed.

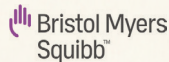
**Conclusion:** There are several described techniques for correcting recto-urethral fistulas. Fistula repair with gracilis muscle interposition is a cost-effective technique with good long-term results. However, the patient should be informed of the complexity of the pathology and the possibility of failure of the surgical treatment with recurrence of the fistula.

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