Association des Urologues du Québec Congrès Annuel 2024 – Résumés

Session scientifique I

Vendredi 8 novembre 2024 • Friday, November 8, 2024

Cité comme suit : *Can Urol Assoc J* 2024;18(12S4):S231-5. http://dx.doi.org/10.5489/cuaj.9081

Résumé 46

A novel scoring system to predict the need for admission in patients presenting to the emergency department with gross hematuria

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Introduction: Gross hematuria (GH) is a common presenting complaint to the emergency department (ED). Some patients develop hematuria that is severe enough to warrant admission, continuous bladder irrigation (CBI), blood transfusions, and operative interventions. This study aimed to describe the demographics and risk factors of patients that require admission to the hospital for urologic care and develop a novel scoring system to guide clinical decisions.

Methods: All patients who presented to the ED with GH at a single institution between 2018 and 2022 were reviewed. Patient demographics, comorbidities, relevant urologic history, and outcomes were recorded. Descriptive statistics were performed. A split-sample based method was employed, with a derivation and validation cohort reviewed separately. Univariate and multivariate analysis (MVA) were conducted to identify variables correlating with the need for admission. Using the Johnson's scoring method, variables that correlated on the MVA were used to develop the scoring system that was then validated on another cohort of patients presenting with GH.

Results: Of 1012 patients included in the final analysis of the derivation group, 229 (23%) were admitted. Heart rate >100 beats/minute at presentation, need for CBI, history of urologic malignancy, urologic consultation requested, and need for blood transfusions of ≥2 units were variables found to be predictive of need for admission when developing the scoring system. The scoring system had an area under the curve (AUC) of 0.917 on the receiver operator curve (ROC). By selecting a cutoff score of ≥10 points, a sensitivity of 84% and a specificity of 86% were achieved. This scoring system was validated on a separate validation cohort of 311 patients. The analysis yielded a similar sensitivity and specificity, with AUC of 0.936 on the ROC.

Conclusions: We present a novel, practical, and internally validated scoring system to predict patients at risk of requiring hospital admission for GH presenting to the ED. Our proposed scoring system may be helpful in triaging patients and planning hospital bed management. Prospective external validation of this scoring system at both academic and community hospitals is warranted.

Résumé 13

Modalités de traitement de lithiases de petite taille et leur impact sur la qualité de vie

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Introduction : La qualité de vie (QdV) des patients est souvent réduite lors d'un évènement d'urolithiase. Il existe plusieurs options thérapeutiques pour les lithiases, incluant la surveillance active (SA), la thérapie médicale expulsive (TME), la lithotripsie par ondes de choc (LOC) et l'urétéroscopie (URS). Cette étude s'agit d'une revue systématique visant à décrire la différence en QdV rapportée par les patients ayant des urolithiases avec un diamètre ≤ 10mm.

Méthodes : Plusieurs bases de données électroniques étaient recherchées sans restriction de langue ou de date pour identifier les études de cas, séries de cas, études cas-témoins, études de cohorte, et essais cliniques randomisés, qui étaient inclus s'ils rapportaient: des patients adultes (≥18 ans), des lithiase(s) rénale(s) ou urétérale(s) sur imagerie, des données validées sur la QdV, et des lithiases avec un diamètre plus petit ou égal à 10mm prises en charge par SA ou par traitement actif.

Résultats : De 672 articles, 9 études étaient élligibles. Cinq études rapportaient la QdV selon la prise en charge médicale des lithiases, tous dans l'uretère. Parmi ces études, 3 ont conclu que les patients traités avec TME avaient une meilleure QdV que ceux traités par SA, alors que 2 études n'ont pas retrouvé de différences entre les groupes. Quatre études rapportaient la QdV selon la prise en charge procédurale des lithiases, dont 3 dans l'uretère et 1 dans le rein. Parmi les études sur les lithiases urétérales, 2 ont conclu que les patients traités par URS avaient une meilleure QdV, alors que 1 étude n'a pas retrouvé de différences entre les groupes. L'étude sur les lithiases rénales a conclu que les patients traités par LOC avaient une meilleure QdV.

Conclusions : La litérature démontre que les patients avec lithiases ≤ 10mm ont une meilleure QdV quand traités par: TME (vs. SA) dans l'uretère; LOC (vs. URS) dans le rein; URS (vs. LOC) dans l'uretère. Il y a un besoin important pour plus études sur ce sujet.

Résumé 24

Cost-effectiveness analysis of contemporary advanced prostate cancer management: A Markov model for the Canadian context

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Introduction: Recently, there has been a proliferation of new approved treatments for the management of prostate cancer (PCa), including numerous second-generation anti-androgens (SGAAs). Despite improving patient outcomes, SGAA use typically leads to resistance and prevents effective rechallenges. Consequently, the optimal timing of SGAA use is an open question. Although there are health economic analyses of novel PCa treatments for specific patient states, there is a lack of analogous dynamic analyses. Our paper aimed to fill this gap.

Methods: We developed a Monte Carlo Markov model to simulate the management of advanced PCa to end of life. We modeled patients who begin in metastatic and non-metastatic hormone-sensitive PCa (mHSPC and nmHSPC), with risk stratification for mHSPC, progressing to metastatic and non-metastatic castration-resistant PCa (mCRPC and nmCRPC). Using current Canadian guidelines and reimbursement restrictions, we simulated all admissible treatment sequences over these states over a 15-year horizon and compared outcomes for each sequence. We aimed to report the best treatment sequences over a 15-year horizon for a variety of health outcomes, as well as net health benefits (NHB), expressed as quality-adjusted life years (QALYs) minus costs for a range of willingness to pay (WTP) values.

Results: We found that early SGAA use delivers the best health outcomes for all patients, as well as the best NHB for mHSPC-starting patients at moderate to high WTP (NHB gains: 0.93–1.5 QALYs at CAD $100k–150k WTP); however, early SGAA use is comparable to late SGAA use and even no SGAA use for nmHSPC patients at all WTP (NHB gains: -0.27–0.18 QALYs at CAD $50–150k WTP) and mHSPC patients at low WTP (NHB gain: 0.09–0.32 QALYs at CAD $100–150k).

Conclusions: We conclude that both from a health and health economic perspective, there is a wide range of treatment strategies that deliver near-best average patient outcomes. Broadly, SGAAs are more effectively used during early stages of PCa, but not using SGAAs at all is near-optimal for nmHSPC patients and/or cost-constrained payers.

Résumé 20

Alimentation et incidence du cancer de la prostate chez les hommes à risque – Étude BIOCAPPE

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Introduction : Au Canada, 1 homme sur 8 développera un cancer de la prostate (CaP) au cours de sa vie. Parmi les facteurs de risque, l'alimentation est suspectée de jouer un rôle déterminant dans le développement et la progression de la maladie. L'objectif principal de la présente étude est d'étudier les associations entre les patrons alimentaires et l'incidence du CaP chez les hommes à risque.

Méthodes : 2053 hommes à risque de CaP (avec 1ére biopsie négative ou antigène prostatique spécifique (APS/PSA) entre 2.5-10 ng/mL) ont été enrôlés dans cette étude observationnelle prospective multicentrique. À l'entrée dans l'étude, les données alimentaires ont été récoltées avec un questionnaire de fréquence alimentaire validé. Tous les participants sont suivis au téléphone et en clinique annuellement (médiane = 5,5 ans). Les patrons alimentaires «a posteriori» ont été identifiés à l'aide d'analyse en composantes principales (ACP). Des modèles de régression de Cox ont été utilisés afin d'estimer l'association entre les principaux patrons alimentaires et l'incidence du CaP.

Résultats : Trois patrons alimentaires ont été identifiés: « Méditerranéen », composé de fruits, légumes, pain multigrain, tofu, poisson riche en gras, fruits de mer et huile d'olive pour la cuisson; « Occidental », composé de viandes rouges et transformées, aliments transformés, pommes de terre et beurre pour la cuisson; et « Sucre et produits laitiers », composé de biscuits commerciaux, muffins, craquelins, lait régulier, yogourt, carottes, pommes, cerises et margarine pour la cuisson. En comparant le score des tertiles les plus élevés versus les plus bas, une tendance d'accroissement du risque de CaP a été observée pour le patron alimentaire de type Occidental (HR=1,285 IC95% [0,963-1,715, p=0,08).

Conclusions : Ces résultats décrivent les habitudes alimentaires des hommes à risque de CaP, suggérant des pistes d'amélioration de la qualité de leur diète afin de limiter le risque de développer un CaP.

Résumé 30

Enhancing urologic education: Canadian medical students' confidence and preferred teaching methods

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Introduction: Urologic complaints are common and expected to rise given the aging population, necessitating well-prepared medical graduates to recognize essential urologic complaints. Since 2011, efforts were made to standardize urological education in Canada through the Canadian Undergraduate Urology Curriculum (CanUUC). This study evaluated medical students' comfort in urologic topics, their preferred teaching methods, and their awareness of the CanUUC.

Methods: An anonymous, 54-item survey targeting third and fourth-year Canadian medical students was distributed from February to June 2024. The survey was piloted among first-year urology residents (PGY1s). Learners' comfort was evaluated using a five-point Likert scale (1=least comfortable, 5=most comfortable). Data was also collected on trainees' past participation in urology rotations, training level, base campus, and awareness of CanUUC's curriculum.

Results: The survey was completed by 10 PGY1s and 117 medical students. The total mean comfort scores for medical students were 3.58±0.89 for physical examination, 3.51±0.63 for history taking, 3.38±0.68 for diagnosis, and 3.16±0.73 for patient management. The three most preferred teaching methods by medical students were direct clinical exposure, simulation sessions, and case-based discussions. Medical students who completed a urology rotation were significantly more comfortable with history taking (p=0.003) and patient management (p=0.003) than those who did not. Furthermore, PGY1s were significantly more comfortable with history taking (p=0.04) and patient management than medical students (p=0.043). Only seven medical students (5.98%) were aware of CanUUC's curriculum, with five (71.43%) using it.

Conclusions: Medical students have moderate comfort in handling urologic conditions, with higher comfort among those who completed urology rotations. Despite efforts to implement a national curriculum, awareness and use of the CanUUC are very low, indicating a need for increased promotion and integration of the curriculum.

Résumé 7

Predicting poor voiding pattern after HoLEP using maximum flow rate (Qmax) as an objective outcome

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Introduction: Benign prostate enlargement (BPE) management has evolved significantly with the advances in medical technology and surgical technique. Holmium laser enucleation of the prostate (HoLEP) has emerged and is considered the size-independent gold standard for surgical management of BPE. Unfortunately, not all patients have excellent voiding after relief of obstruction caused by BPE. This study aimed to identify preoperative patient characteristics that predict poor voiding patterns after HoLEP using postoperative maximum flow rate (Qmax) as an objective measurement.

Methods: A retrospective chart review of all patients undergoing HoLEP procedures at our institution between January 2006 and December 2022 was performed. Patient demographics, preoperative PSA, IPSS score, Qmax, and catheter time were collected. Postoperative catheter time, trial of void results, IPSS score, and Qmax were obtained. Predictive factors of poor emptying, defined as Qmax <15 ml/sec, were identified using logistic regression models.

Results: A total of 1121 HoLEP procedures were analyzed. The mean age was 70.78, the mean prostate volume was 98.349, and the mean hospital stay was 1.3±1.6 days. Low Qmax was found in 232 (29.6%) at one-month followup. Diabetes mellitus (DM), weight of enucleated prostate, being on combination medication for BPE, and low preoperative Qmax were identified as independent risk factors for low Qmax. They had an OR of 1.29, 0.998,1.16, and 1.29, respectively (p<0.005). Age had an OR of 0.0066 (p=0.057), which may suggest it is a dependent risk factor for low Qmax.

Conclusions: DM, a larger volume of enucleated tissue, being on combination BPE therapy, and low preoperative Qmax are risk factors for low Qmax post-HoLEP. Understanding these factors can help improve patient counseling and followup.

Résumé 14

Optimal timing of cytoreductive nephrectomy in metastatic renal cell carcinoma patients considering sarcomatoid status: A real-world study

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Introduction: We aimed to evaluate and compare the outcomes of metastatic renal cell carcinoma (mRCC) patients, with or without sarcomatoid features, who underwent cytoreductive nephrectomy (CN) before or after systemic therapies (ST).

Methods: Synchronous metastatic RCC patients of IMDC intermediate- and high-risk diagnosed between January 2011 to December 2022, treated with CN before or after ST, and with histologic documentation of the presence or absence of sarcomatoid features in nephrectomy specimens were identified using the Canadian Kidney Cancer information system (CKCis). Patients were classified by treatment sequence received: 1) CN after ST; or 2) CN before ST. Inverse probability of treatment weighting using propensity scores was used to balance for covariates. Cox proportional hazards models were used to assess the impact of initial treatment received on overall survival (OS).

Results: Of 709 eligible patients, 105 were treated with CN after ST and 604 with CN before ST; 75% were male, and the majority (70%) received targeted therapies (TT) used alone. In non-sarcomatoid patients (80 CN after ST and 454 CN before ST), treatment with CN after ST (CR 12.5%) was not associated with improved OS compared CN before ST (CR 2.2%) (median of 60 vs. 48 months, HR 0.84, 95% CI 0.64–1.11). In sarcomatoid patients (25 CN after ST and 150 CN before ST), a non-statistically significant result shows that CN before ST (CR 5.3%) was also not associated with better survival (median of 24 vs. 36 months, HR 1.10, 95% CI 0.70–1.73).

Conclusions: This study demonstrated that, no matter the sarcomatoid status, there is no statistical difference between receiving CN after ST or CN before ST. The timing of CN could potentially be linked more to clinical assessments than the knowledge of sarcomatoid status.

Résumé 28

Qui du patient ou du chirurgien détermine la notion de guérison post énucléation de prostate au laser holmium ?

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Introduction : La technique d'énucléation de prostate au laser Holmium (HoLEP) est reconnue pour ses excellents taux d'amélioration fonctionnelle. Toutefois, la notion de « guérison » post-opératoire reste mal définie en raison de la subjectivité des symptômes. Cette étude vise à comparer trois définitions de guérison après HoLEP : celle du patient, celle du chirurgien et une combinaison des deux perspectives.

Méthodes : Nous avons analysé rétrospectivement les données de notre base prospective de patients traités par HoLEP entre 2020 et 2024. Toutes les interventions ont été réalisées par deux chirurgiens. Les patients incapables de compléter des questionnaires de suivi ou de consentir à la collecte de données ont été exclus. Les définitions de guérison étaient les suivantes : point de vue du patient (critères subjectifs) : score IPSS ≤7 et QoL ≤2 ; point de vue du chirurgien (critères objectifs) : débit max (Qmax) >15 ml/s et résidu post-mictionnel (RPM) <200 ml; point de vue combiné : ensemble des critères réunis. Ces variables étaient collectées à 3, 6 et 12 mois.

Résultats : Nous avons inclus 96 patients, dont l'âge moyen était de 71,6 ± 6,9 ans. Parmi eux, 67% étaient en rétention urinaire pré-opératoire. Les valeurs pré-opératoires moyennes étaient: IPSS de 18,2 ± 7,5, QoL de 4,5 ± 1,5, Qmax de 7,9 ± 6,0 ml/s et RPM de 216 ± 159 ml. Les taux de guérison selon la perspective du patient à 3, 6 et 12 mois étaient respectivement de 61,4 %, 69,7 % et 79,7 %. Selon la perspective du chirurgien, ces taux étaient de 47,1 %, 26,2 % et 27,0 %. Enfin, selon les perspectives combinées, les taux de guérison étaient de 15,3 %, 21,9 % et 23,1 % aux mêmes intervalles de temps.

Conclusions : Cette étude montre que la notion de guérison après HoLEP varie selon la perspective adoptée. Les taux de guérison de notre cohorte reflètent une grande amélioration subjective des symptômes. Cependant, les perspectives du chirurgien et celle combinée, basées sur des critères objectifs, montrent des taux inférieurs. Cette disparité souligne l'importance de prendre en compte plusieurs paramètres pour une évaluation exhaustive des résultats post-opératoires en HoLEP.

Résumé 49

Adolescent microsurgical varicocelectomy and changes in sperm parameters: A prospective, matched-cohort analysis.

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Introduction: Varicocele is known to be associated with impaired semen parameters and male infertility in adults; however, its impact on the adolescent and young adult (AYA) population is less well known. The study aimed to assess the improvement in sperm parameters following varicocelectomy in the AYA population, comparing them to matched adult counterparts, and investigating potential advantages of early intervention.

Methods: A prospective analysis was conducted using a comprehensive database at the University of Miami spanning from 2010–2022. We included AYA (under 25 years of age) men who underwent varicocelectomy. To ensure comparability, they were matched with adult patients (over 30 years of age) based on follicle-stimulating hormone (FSH) values, varicocele grade, and laterality (unilateral or bilateral) in a 1:2 ratio. Semen parameters were evaluated before and after surgery, including sperm count, motility, morphology, and overall semen quality.

Results: We included 45 patients in the AYA category, and matched them with 116 adults based on FSH, varicocele grade, and laterality, all of whom underwent microsurgical varicocelectomy. The AYA group exhibited greater improvements post-varicocelectomy compared to the matched cohort. FSH levels in the AYA group were significantly lower than in adults after varicocelectomy, 4.2 and 8.92, respectively ($p=0.022$). Furthermore, postoperative sperm concentration in the AYA men demonstrated a remarkable increase, with a 1.7-fold increase in mean concentration compared to the adult group ($p<0.001$). Additionally, motility also displayed significant enhancement among the AYA men, with a final mean total motile sperm count (TMSC) improvement of 2.25-fold compared to the adult cohort ($p=0.002$).

Conclusions: This study highlights the potential benefits of varicocelectomy as a viable treatment option for adolescents and young adults with varicocele, particularly those with impaired semen parameters. By intervening at an earlier stage of development, patients in this age group can achieve significant improvements in semen quality, as compared to their adult counterparts.

Résumé 9

A fully automated, multi-task, machine-learning prognostic model integrating radiomics and clinical data to predict outcomes in high-grade prostate cancer

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Introduction: We aimed to develop an automated, multi-task, prognostic model that combines clinical data with radiomics from positron emission tomography (PET) with 18F-fluorodeoxyglucose (FDG) combined with computed tomography (CT), eliminating the need for manual segmentation while providing clinically interpretable results. This is the first study of its kind using radiomics in prostate cancer that describes long-term clinical outcomes.

Methods: A total of 295 individuals with high-grade prostate cancer (Gleason score ≥8) who underwent radical prostatectomy (RP) and FDG-PET/CT imaging preoperatively at our tertiary care health center were included. Clinical data, including age, prostate-specific antigen (PSA) level, clinical stage, and Gleason grade, were collected. Six prognostic tasks were defined, including lymph node invasion (LNI), biochemical recurrence (BCR)-free survival (FS), metastasis-free survival (MFS), definitive androgen deprivation therapy (dADT)-FS, castration-

resistant prostate cancer (CRPC)-FS, and prostate cancer-specific survival (PCSS). A Bayesian sequential network (BSN), a dynamic prediction model quantifying uncertainty and adapting over time as outcomes from prior tasks unfold, was developed. It was compared with commonly used nomograms (MSKCC and CAPRA-S). Performance metrics on the holdout set were evaluated using the area under the curve of the receiver operator characteristic (AUC-ROC) and the concordance index (C-index).
Results: Median followup was 64.7 (range 29.3–89.6) months. Median age was 66 (48–80) years. Median PSA was 7.4 (1.1–155.3). A total of 230 (88%) and 31 (12%) had clinical T1-T2 and T3a disease, respectively. At RP, 86 (29%) had LNI. At followup, 160 had BCR, 38 had metastases, 72 started dADT, 23 had CRPC, and 11 had PCSS. On the holdout set, comprising 45 individuals, the BSN model outperformed nomograms for predicting LNI (AUC 66.3%), MFS (CI 75.3%), and dADT-FS (CI 69.6%). The nomogram still outperformed our BSN model for predicting BCR-FS (CI 63.5% [MSKCC] vs. 59.2%), CRPC-FS (CI 67.6% [CAPRA-S] vs. 65.6%), and PCSS (CI 87.8% [MSKCC] vs. 78.0%).
Conclusions: Our fully automated, self-learning, multi-task model achieved good predictions with minimal training compared to commonly used nomograms while quantifying associated uncertainty.

Résumé 31

Enucléation au laser holmium vs. prostatectomie simple assistée par robot pour l'HBP : une revue systématique et méta-analyse des résultats chirurgicaux

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Introduction : L'augmentation de la prévalence de l'Hyperplasie Bénigne de la Prostate (HBP) souligne le besoin urgent d'interventions chirurgicales améliorant non seulement les résultats pour les patients, mais minimisant les complications et les temps de récupération. Parmi les options chirurgicales disponibles, l'énucléation au laser Holmium de la prostate (HoLEP) et la prostatectomie simple assistée par robot (RASP) ont émergé comme des procédures de premier plan. Cette revue systématique et méta-analyse vise à comparer rigoureusement l'efficacité, l'efficience et la sécurité du HoLEP par rapport au RASP.
Méthodes : Réalisée conformément aux directrices PRISMA, notre protocole a été enregistré sur Prospero [CRD42024509627]. Une recherche des bases de données Medline, Embase, Web of Science, Scopus et CINAHL jusqu'au 1er février 2024 a été menée. Nous avons inclus des études comparant directement les résultats du HoLEP et du RASP chez les patients adultes atteints d'HBP.
Résultats : L'analyse comparative a nettement favorisé le HoLEP par rapport au RASP sur plusieurs indicateurs de performance chirurgicale critiques. Le HoLEP a réduit le temps opératoire de 49,48 minutes en moyenne, la durée d'hospitalisation de 1,5 jour et la période de cathétérisme de 3,8 jours, démontrant son efficacité opérationnelle supérieure. Les profils de sécurité ont également mis en évidence les avantages du HoLEP, avec une réduction de 75% du risque de transfusion et une diminution significative des complications postopératoires mineures et sévères de 44%. Malgré ces différences, l'analyse des résultats fonctionnels, tels que le Qmax et le PVR, n'a montré aucune disparité significative entre les procédures, soulignant leur efficacité comparable.
Conclusions : Nos résultats démontrent la supériorité du HoLEP en termes d'efficacité opérationnelle et de sécurité pour la gestion de l'HBP par rapport au RASP. L'étude consolide la position du HoLEP en tant que technique chirurgicale préférée, suggérant la nécessité d'un d'une réforme dans la pratique clinique. Les preuves suggèrent des avantages des efforts ciblés pour améliorer la formation chirurgicale et augmenter l'accessibilité du HoLEP afin d'optimiser les résultats pour les patients et les pratiques de santé dans la gestion de l'HBP.

Résumé 44

Pilot single-masked, randomized, 3-arm parallel study assessing the tolerability, safety, and efficacy of intraurethral/intravaginal 2940 nm ER:YAG laser treatment for stress urinary incontinence

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Introduction: Stress urinary incontinence (SUI) includes loss of urethral support and intrinsic sphincter deficiency (ISD). We aimed to enhance SUI by integrating intraurethral (IU) with intravaginal (IV) non-ablative Er:YAG laser therapy. The primary objective was to evaluate the safety of IU+IV for SUI with ISD components and compare it to IV only and sham through six- and 12-month followups. The secondary objective was to assess the efficacy of the IU+IV and IV-only treatments compared to sham.
Methods: Women with proven SUI with a degree of ISD were randomized into IU+IV laser treatment (n=20), IV laser treatment (n=20), and sham control (n=15). The sham subjects were offered active treatment after a six-month followup. Subjects in both active groups were followed out to 12 months post-treatment.
Results: We randomized 55 patients into three groups and 53 patients completed the trial. Thirty-nine AEs were recorded in 23 patients; 17/39 recorded AEs were probably related or related to the procedure. Among these, seven cases were associated with increased SUI, four with urethral pain, two with pelvic pain, two with vulval/vaginal pain, one with dysuria, and one with de novo SUI. Mean (SD) duration of the AEs was 2.93 (3.2) days. VAS pain scale at treatment 1 seems higher in the group IV+IU compared to sham and IV. At six-month (and 12-month) followup, >50% reduction of 24h pad weight was observed in 64.7% (55.6%) of patients in the IU+IV group, 36.8% (58.8%) in the IV group, and 33.3% in the sham group. The odds of observing a >50% reduction of 24h pad weight at six months increase to 246% in the IV+IU arm compared to the IV arm (OR 3.46 [0.89–14.9], p=0.08). At six-month followup, a >2.5-point reduction of ICIQ-SF was observed in 57.9% of the IV+IU group, 63.2% of the IV group, and 33.3% of the sham group. At 12-month followup, a >2.5-point reduction of ICIQ-SF was observed in 55.6% of the IV+IU group and 47.8% of the IV group.
Conclusions: The addition of the intraurethral treatment did not result in a higher incidence of AEs. In patients with a degree of ISD, combining IU+IV treatments may improve the efficacy of the laser procedure. Clinical studies with a higher number of patients should be performed to confirm the results.

Résumé 45

Implementation of a new prostate cancer diagnostic pathway in biopsy-naive patients: Real-world evidence

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Introduction: Several guidelines recommend multiparametric magnetic resonance imaging (mpMRI) in the prostate cancer (PCa) pathway before an initial prostate biopsy (Bx). Our objective was to assess the feasibility of implementing a new PCa diagnostic pathway with the addition of mpMRI in a real-world setting.
Methods: A committee involving stakeholders (e.g., urologists, radiologists, managers) was created to review the PCa diagnostic pathway for Bx-naive patients. The new pathway includes initial consultation with urologist and mpMRI exam when recommended. Men recommended Bx after mpMRI had both targeted three-dimensional transrectal ultrasound-MRI fusion Bx and systematic Bx. Data were collected between September 2021 and June 2022. A cohort of 629 Bx-naive patients who underwent an initial systematic Bx in 2017 without mpMRI was the comparison group. Clinically significant PCa (csPCa) was defined as grade group ≥2.
Results: A total of 1336 Bx-naive patients were referred to urologist: followup was recommended for 703 (53%), systematic Bx for 254 (19%), and mpMRI for 379 (28%). Among patients who had biopsies in the new pathway, csPCa was diagnosed in 246/427 (58%) patients referred to mpMRI or directly to systematic

Bx compared to 274/629 (44%) patients in the 2017 cohort (p<0.0001). The new PCa diagnostic pathway prevented 33% of patients from having Bx. Shorter delays between initial consultation with urologists and transmission of Bx results were observed for patients referred directly for prostate Bx compared to mpMRI before Bx (mean: 2.8 vs. 9.1 months).
Conclusions: Implementation of the new PCa diagnostic pathway with the addition of mpMRI in a real-world setting has highlighted the added value of the early involvement of urologists for the triage of Bx-naive patients and limited the use of mpMRI, and yet avoided unnecessary Bx and increased csPCa detection. Accessibility to prostate mpMRI remains a major limitation to the implementation of this new diagnostic pathway.

Résumé 2

A scoping review of the oral treatment options for the management of detrusor sphincter dyssynergia

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Introduction: Neurogenic bladder may be associated with detrusor sphincter dyssynergia (DSD). Oral medications offer conservative alternatives for patients who can yet refrain from resorting to more invasive treatment options. Given the sparsity of the literature and the absence of official guidelines regarding the use of oral medications in the management of DSD, this scoping review aimed to critically assess the available evidence to guide future research and practice.
Methods: We conducted a systematic scoping review of articles published from 1950 to July 2023 using PubMed, MedLine, Scopus, and CINAHL databases to assess all oral treatment options for DSD. Abstracts from conferences were also considered. All study designs were included. The search was limited to English and French literature regarding human patients over 18 years of age with DSD.
Results: Of the 899 records screened, 15 studies were included involving a total of 257 participants. We found that alpha-adrenergic blockers, nitric oxide, and muscle relaxants have been used in the treatment of DSD, among other medications. A decrease of postvoid residual (PVR) volumes and an improvement of symptom scores, as well as urine flow rates were reported in several studies. Regarding the alpha-adrenergic blockers, five of the six studies that detailed PVR and subjective improvement in voiding symptoms noted improvements in the majority of patients. Additionally, two of the three studies that addressed mean flow rate observed improvements in most patients. None of the six studies that documented adverse effects found side effects in the majority of patients.
Conclusions: The use of alpha-adrenergic blocking agents appears to be promising, but evidence is lacking on the oral treatment of DSD. This study highlights the importance of conducting more studies to draw solid conclusions and stop treating these patients empirically.