Urology Research Review™

Making Education Easy

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In this issue:

Abbreviations used in this issue:

ADT = androgen deprivation therapy; **BMI** = body mass index; **BPH** = benign prostatic hyperplasia; **CI** = confidence interval; **HR** = hazard ratio; **IIEF-15** = 15-item International Index of Erectile Function; **LUTS** = lower urinary tract symptoms; **OR** = odds ratio; **UTI** = urinary tract infection.

Welcome to Issue 63 of Urology Research Review.

In a systematic review and meta-analysis, we learn that testosterone treatment may provide clinically meaningful treatment for men aged ≥40 years with mild erectile dysfunction. We also review several studies on benign prostatic hyperplasia, including a population-based study that showed that the use of 5-alpha reductase inhibitors is not associated with an increased risk of hospitalisation for heart failure, stroke, myocardial infarction or cardiovascular death. We wrap up this issue with a study presenting early safety outcomes for the Rigicon ContiClassic® sphincter, an artificial sphincter device for men with stress urinary incontinence.

We hope you find our selection of articles for this review interesting and welcome your feedback.

Kind Regards,

Professor Eric Chung

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Symptomatic benefits of testosterone treatment in patient subgroups: A systematic review, individual participant data meta-analysis, and aggregate data meta-analysis

Authors: Hudson J et al.

Summary: This systematic review and meta-analysis assessed characteristics associated with symptomatic benefit of testosterone versus placebo treatment in subgroups of men with low testosterone (<12 nmol/L) based on 17 trials (3431 participants; median age 67 years; 97% aged ≥40 years). Testosterone increased 15-item International Index of Erectile Function (IIEF-15) total score (mean difference 5.52; 95% CI 3.95-7.10) and IIEF-15 erectile function subscore (mean difference 2.14; 95% CI 1.40-2.89). There was no dependence on age, obesity, presence of diabetes mellitus, or baseline serum total testosterone. Compared with placebo, testosterone improved Aging Males' Symptoms score, and some 12-item or 36-item Short Form Survey quality of life sub-scores, but it did not improve Beck Depression Inventory measures of psychological symptoms.

Comment: Controversy continues to exist with regard to testosterone therapy and there is some uncertainty among clinicians regarding the clinical effectiveness of testosterone among patient subgroups that has contributed to discrepant prescribing practices and inconsistent treatment for men with low testosterone since the postulated benefits of testosterone have not been established in men with age-related low testosterone. This systematic review and meta-analysis showed that compared with placebo, testosterone treatment increased IIEF-15 total score and erectile function sub-score, reaching the minimal clinically important difference for mild erectile dysfunction. However, these effects were not found to be dependent on participant age, obesity, presence of diabetes, or baseline serum total testosterone level. Comparing the effectiveness of testosterone to improve symptoms in specific patient subgroups, including older men and men with obesity, would improve the prediction of symptomatic benefit in men with low testosterone. However, the exact clinically meaningful improvement in other sexual function parameters apart from sexual desire or libido is not clear and the long-term risks and benefits of testosterone treatment for older men and men with obesity require further investigation. Testosterone should always be initiated following adequate informed counselling within a holistic clinical care model and an emphasis on addressing modifiable risk factors (such as obesity and smoking) and optimising underlying medical comorbidities (such as sleep apnoea and diabetes).

Reference: Lancet Healthy Longev. 2023;4(10):e561-e572

Abstract

The cardiovascular safety of five-alpha-reductase inhibitors among men with benign prostatic hyperplasia: A population-based cohort study

Authors: Ayele HT et al.

Summary: This Canadian study used data from the Clinical Practice Research Datalink (n = 94,440) to compare rates of hospitalisation for heart failure among men with benign prostatic hyperplasia (BPH) receiving 5-alpha reductase inhibitors (5αRIs) to those not receiving treatment. Over 527,660 person-years of follow-up there were a total of 3893 heart failure hospitalisations (7.38 per 1000 person-years; 95% CI 7.15-7.61,). Use of 5αRIs was not associated with an increased risk of hospitalisation compared to no medication for heart failure (HR 0.94; 95% CI 0.86-1.03), stroke (HR 0.94; 95% CI 0.85-1.05), myocardial infarct (HR 0.92; 95% CI 0.81-1.05), or cardiovascular death (HR 0.89; 95% CI 0.80-0.99).

Comment: There is a concern that 5αRI use can result in lower levels of the active testosterone metabolite dihydrotestosterone, which is indirectly associated with adverse cardiovascular effects. Despite a biological rationale supporting the adverse cardiovascular effect of 5αRIs, only a small number of previous studies, with important methodological limitations, have assessed this risk. By linking the Clinical Practice Research Datalink with hospitalisation records among patients newly diagnosed with BPH, a total of 3893 hospitalisations for heart failure were identified over 527,660 person-years of follow-up out of 94,440 men with incident BPH. 5αRIs were not associated with an increased risk of hospitalisation for heart failure, myocardial infarction, stroke, or cardiovascular death. While there are biases in this type of linkage study, such as unaccounted potential confounders and misclassification of exposure, this large population-based cohort study provides important reassurance regarding the cardiovascular safety of 5αRIs in this patient population. It is likely to postulate the increasing adverse cardiovascular profile is related to underlying medical comorbidities rather than a true effect of 5αRIs.

Reference: Am J Med. 2023;136(10):1000-1010.e7
Abstract

External validation of a risk model predicting failure of salvage focal ablation for prostate cancer

Authors: Light A et al.

Summary: This study used a prospective, UK multicentre dataset to externally validate a risk model published in 2018 for the prediction of salvage focal ablation (high-intensity focussed ultrasound [HIFU]; cryotherapy) failure within 2 years in 168 men with localised radio-recurrent prostate cancer. In total, 84 (50%) men experienced treatment failure across all follow-ups, and 72 (43%) within 2 years; 34 patients experienced biochemical failure, 31 had positive reimaging, 4 had a positive re-biopsy, and 3 started systemic treatment. The concordance index (C-index) for the model discrimination was modest at 0.65 (95% CI 0.58-0.71) with close agreement between predicted and observed failure. A decision curve analysis suggested that there was incremental net benefit using model-based decision-making compared with a 'treat all' strategy.

Comment: Biochemical failure after radiotherapy for prostate cancer is not uncommon, and a significant proportion of these failures are due to local residual or recurrent disease. Early or delayed palliation using ADT has been the most common approach and while a conservative approach is often appropriate for many individuals, selected patients would benefit from retreatment with curative intent. However, radical salvage surgery is often not recommended largely likely due to advanced patient age, existing comorbidities, and surgeon's expertise coupled with concerns about significant toxicity and lack of long-term benefits from local salvage procedures. Hence, salvage focal therapy seems like a "safer" choice in this group of patients. In this interesting prospective, UK multicentre dataset that analysed salvage focal ablation in men with localised radio-recurrent prostate cancer, it was found that during the 2 years post-salvage there was close agreement between predicted and observed failure and there was incremental net benefit versus a 'treat all' strategy at risk thresholds of ≥0.23. Salvage treatments for radio-recurrent prostate cancer have different toxicity profiles and are undoubtedly more toxic than primary treatment. Management of isolated local failure after radiotherapy remains challenging. However, with the recent progress in salvage techniques coupled with more sensitive functional imaging for tumour localisation and staging, and the advent of new drugs, salvage treatments are likely to play an increasingly important role.

Reference: BJU Int. 2023;132(5):520-530
Abstract

Evaluation of risk factors, treatment options, and prognostic-related factors in patients with benign ureteral strictures: An 8-year single-center experience

Authors: Ou Y et al.

Summary: This retrospective study (2013-21) examined the aetiology, therapeutic effect, and prognosis-related factors in 142 patients with benign ureteral strictures who received endourological treatment (n = 95) or reconstruction (n = 47). In 85.2% of cases the cause was stone-related factors. Overall success of endourological treatment was 51.6% versus 95.7% for reconstruction ($p < 0.01$); however, endourological treatment had better postoperative hospital stay time, operation time, and intraoperative blood loss ($p < 0.001$). Endourological patients with a higher success rate had stricture length ≤2 cm, mild-to-moderate hydronephrosis, and proximal or distal stricture. Multivariate analysis suggested surgical method was the only independent risk factor affecting success and recurrence, with reconstruction having a higher success rate than endourological treatment (OR 0.057; 95% CI 0.011-0.291; $p = 0.001$), and a lower recurrence rate (HR 0.074; 95% CI 0.016-0.338; $p = 0.001$). There was no obvious recurrence for reconstruction, and the median recurrence time for endourological treatment was 51 months.

Comment: Treatment of ureteric strictures focuses on the preservation of renal function and symptom control, as well as minimising morbidity and mortality. With the technological advances in endourology, endoscopic treatments, including balloon dilation, cold knife incision, and laser endoureterotomy are utilised more commonly than open or robotic reconstructive surgery. This single hospital reported that stone-related factors are responsible for 85.2% of ureteral stricture cases and while the overall success rate of endourological treatment was lower than reconstruction (51.6% vs 95.7%), this group was better in terms of postoperative hospital stay time, operation time, and intraoperative blood loss. The treatment of ureteral injury, which depends on the type, location, and degree of injury, the time of diagnosis and the patient's overall clinical condition, ranges from simple endoscopic management to complex surgical reconstruction. Minimally invasive treatment using endoscopic dilatation or laser incision is currently regarded as the standard safe surgical practice, although there are no existing guidelines on which techniques to use in the treatment of different stricture types and a paucity of data regarding long-term results. It is fair to say that certain stricture characteristics such as location (upper, mid or distal ureter), stricture type (ischemic versus non-ischemic, malignant or benign), stricture length, renal function and underlying medical comorbidities, coupled with patient's preference and surgeon's expertise will dictate the surgical treatment choice.

Reference: Int J Urol. 2023;30(10):847-852
Abstract

Female sexual dysfunction and lower urinary tract symptoms associated with vulvovaginal atrophy symptoms: Results of the GENJA study

Authors: Ozaki Y et al.

Summary: The GENitourinary syndrome of menopause in JApanese women (GENJA) study (n = 4134) assessed the main symptoms of female sexual dysfunction and LUTS associated with vulvovaginal atrophy (VVA) symptoms of genitourinary syndrome of menopause. Multivariate analysis suggested that VVA symptoms were associated with reduced arousal, lubrication, orgasm, satisfaction, and pain in the Female Sexual Function Index (FSFI) in sexually active women ($p < 0.01$), while women with VVA symptoms had increased likelihood of increased daytime urinary frequency, nocturia, urgency, slow stream, straining to void, incomplete emptying sensation, bladder pain, and a sensation of a bulge/lump from or in the vagina ($p < 0.05$). Adjusted odds ratios for these symptoms were high for straining to void, feeling of incomplete emptying, and bladder pain.

Comment: VVA is a chronic progressive disease involving the female genital apparatus and lower urinary tract and is largely related to hypoestrogenism (menopausal state). Considering the high prevalence of VVA and the expected growth of this condition due to the increase in the average age of the female population, it is easy to understand its significant social impact and potential genitourinary issues. The GENJA study involved 4134 Japanese women aged 40-79 years and found that VVA symptoms were associated with lower FSFI scores for arousal, lubrication, orgasm, satisfaction, and pain. Women with VVA symptoms were also more likely to have increased urinary symptoms, bladder pain, and feeling a bulge/lump from or in the vagina. There is a general poor awareness regarding VVA and the tendency to attribute these symptoms as part of the normal ageing process which leads to a significant underestimation and undertreatment of this condition. The currently available treatments are hampered by problems that include contraindications, ineffectiveness, and low compliance, coupled with the need to intervene in modifiable factors to improve local tissue health. In recent years, published literature suggests great efficacy and safety of the role of vaginal laser in the treatment of genital symptoms and improvement in sexual function in patients affected by VVA although longer-term data remains scarce.

Reference: Int J Urol. 2023;30(10):860-865
Abstract

Surgical outcomes and prediction of complications following high-complexity buried penis reconstruction

Authors: Staniorski CJ et al.

Summary: This single-centre retrospective review (2015-22) evaluated surgical outcomes for high-complexity buried penis reconstruction (including escutcheonectomy and penile skin grafting; 28% of repairs included a panniculectomy) in 103 patients (median age 51 years; median BMI 43 kg/m^2) and assessed the effect of medical, surgical, and socioeconomic factors. Overall, 27% of the population were classed as frail (≥2 Modified Frailty Index risk factors) and 33% were socioeconomically disadvantaged (≥85th percentile on Area Deprivation Index). After a median follow-up of 11 months, rate of revision because of poor outcome was 3.9%. Frequent complications (50%) were mostly Clavien I or II (41%) and were related to wound dehiscence (31%) or infection (30%). There was a higher rate of complication in frail patients (71% vs 41%; $p = 0.01$) and they were 6-fold more likely to experience a complication (OR 6.41; 95% CI 1.77-23.22; $p = 0.005$).

Comment: Adult acquired buried penis (AABP) is a condition of entrapment of the phallus resulting most commonly from morbid obesity and formation of cicatrix from coexisting genital lymphoedema, hidradenitis, and trauma. The incidence of this syndrome is invariably connected to the increasing prevalence of obesity and weight loss alone is unlikely to remove AABP. The most recent trends have examined the significant burden of morbidity and even mortality that AABP can place on patients as it contributes to the risk of penile cancer, urethral strictures, and psychosexual disorders. In this single-centre study of 103 patients, 28% of patients underwent a panniculectomy and the rate of revision was 3.9% due to complications relating to wound dehiscence or infection. As expectedly, frail patients had a higher rate of complication and were more likely to experience a complication. The discussion and literature surrounding buried penis reconstruction started with the goal of correcting a cosmetic problem but needs to incorporate and address the coexisting barriers such as weight loss, optimising various medical comorbidities, underlying tissue quality, and functional outcomes of the penis. While referral is the ultimate goal, access to reconstructive surgeons capable of correcting AABP is not guaranteed and often will require a multi-discipline approach.

Reference: J Urol. 2023;210(5):782-790
Abstract

Comparison of collagenase *Clostridium histolyticum* to surgery for the management of Peyronie's Disease: A randomized trial

Authors: Green B et al.

Summary: This was a randomised, controlled trial in 40 men with Peyronie's disease receiving collagenase *Clostridium histolyticum* (CCH) plus RestoreX penile traction therapy plus sildenafil or penile surgery plus RestoreX penile traction therapy plus sildenafil. Overall, there was no difference between treatments with 50% of CCH recipients versus 21% of surgery recipients being 'very satisfied'. Participants noted better subjective erectile function (100% vs 68%; $p = 0.03$) and penile length (88% vs 16%; $p < 0.0001$), less impacts on penile sensation (75% vs 11%; $p < 0.001$), but no difference in IEEF-Erectile Function Domain changes (+1.5 vs +2.5). Objectively, surgery resulted in greater curve improvements (84% vs 54%; $p < 0.01$) and higher rates of adverse events (50 vs 13; $p < 0.001$), but decreased penile length (-0.5 vs +1.0 cm; $p < 0.01$).

Comment: Australia was involved in the original and pivotal IMPRESS clinical trial on CCH and to date, CCH remains the only drug approved specifically for Peyronie's disease. Commercially marketed CCH consists of a combination of synergistically acting collagenases AUX-I and AUX-II, both responsible for degrading collagen type I and III, which is pathognomonic of Peyronie's disease plaque. In this multi-arm comparative study, 50% of men in the CCH group reported being 'very satisfied' and noted better subjective erectile function and penile length, with lesser impacts on penile sensation. As expected, men in the surgery group had greater curve improvements and higher rates of adverse events and decreased penile length. When CCH (Xiaflex®) was first introduced for commercial use in Australia, it was hampered by the cost, number of treatment schedules, complications, and real clinical improvements (compared to surgery). Now, Xiaflex® is no longer available in this country. While CCH has a role in selected patients, I don't think many urologists will yearn for the return of CCH given the cost-effective rationale.

Reference: J Urol. 2023;210(5):791-802
Abstract

Independent commentary by Professor Eric Chung

Professor Eric Chung is a consultant urological surgeon at the Andro Urology Centre for Sexual, Urinary and Reproductive Excellence and holds academic appointments at the University of Queensland (Brisbane) and Macquarie University Hospital (Sydney). He is the Leader of male LUTS and Past Chair of Andrology section in the Urological Society of Australia and New Zealand (USANZ), the Secretary-General for the Asia Pacific Society of Sexual Medicine (APSSM) and Chairperson for the Prostate Cancer Survivorship committee at the International Consultation on Sexual Medicine (ICSM). He has been invited to speak and operate at many international meetings and has authored more than 100 peer-reviewed papers and book chapters.

Very long-term outcomes after electrofulguration for antibiotic-refractory recurrent urinary tract infections in a predominantly menopausal cohort of women

Authors: Gaitonde S et al.

Summary: This study examined the long-term outcomes (>10-year follow-up) of electrofulguration in 71 women (median age 64 years) with antibiotic-refractory recurrent urinary tract infections (UTIs: ≥3 symptomatic recurrent urinary tract infections per year and inflammatory lesions on cystoscopy). Prior to treatment, 74% of women used daily antibiotic suppression, 5% postcoital prophylaxis, 14% self-start therapy, and 7% no prophylaxis. After a median follow-up of 11 years, 72% of women were cured, 22% improved, and 6% failed. Antibiotic usage decreased ($p < 0.05$); with only 5% of women receiving continuous antibiotics ($p < 0.05$). Repeat electrofulguration was undertaken in 19% of women.

Comment: Antibiotic-refractory recurrent UTIs are challenging to manage, and published literature has shown that electrofulguration of cystitis may disrupt the potential nidus of recurrent UTIs in selected patients. In this single institution study, electrofulguration resulted in 72% of women being cured and 22% reported improvement, and a significant decrease in antibiotic usage post-electrofulguration with only 5% of patients on continuous antibiotics at the last follow-up versus 74% pre-electrofulguration. While there have been significant advances in the understanding of the pathogenesis of UTIs and the role of innate immunity and microbiota in recent years, women with recurrent UTIs are increasingly frequent and difficult to treat, in part because of drug allergies, side effects, and resistant strains. While clinical guidelines and level 1 evidence studies support the role of long-term prophylactic antibiotics to decrease the incidence of recurrent UTIs in women, enthusiasm for this prophylactic antibiotic-based approach can wane after patients experience adverse effects or when resistant bacteria arise. Lack of patient compliance and cost of ongoing medication are additional issues confronting patients on long-term prophylactic antibiotic treatment. Perhaps, it is time to revisit electrofulguration in the select cases of recurrent UTI.

Reference: J Urol. 2023;210(4):649-658
Abstract

US patterns of care for urodynamic evaluation for BPH

Authors: Sze C et al.

Summary: This US retrospective study used American Board of Urology case log data (2008-20) to identify factors associated with the use of urodynamic evaluation (UDS) for BPH. Most (80%) urologists using UDS self-identified as general urologists in private practice (69%), were more likely in the Mid-Atlantic region (20.3% vs 10.6%; $p < 0.01$) and with populations of >1,000,000 (34.7% vs 28.5%; $p < 0.01$). UDS utilisation declined over time (OR 0.95 per year; 95% CI 0.91-0.99). The odds of performing UDS were higher in male urologists (OR 2.19; 95% CI 1.17-4.09), older urologists (OR 1.05; 95% CI 1.03-1.06), and female pelvic medicine and reconstructive urologists (OR 3.23; 95% CI 2.01-5.2). UDS for BPH was also associated with higher BPH surgical case volumes (OR 1.004; 95% CI 1.001-1.008).

Comment: BPH often results from benign prostatic obstruction (BPO) associated with benign prostatic enlargement (BPE). But the symptoms and obstruction do not entirely depend on the prostate's size. An assessment of clinically significant bladder outlet obstruction (BOO) has been done using different parameters. To date, most of the evaluations have focussed mainly on the presence of voiding dysfunction rather than the cause. The pressure-flow UDS is considered the 'gold standard' for diagnosing BPO and clinically significant BOO is urodynamically characterised by increased detrusor pressure, a decreased urinary flow rate, and positive bladder outlet obstruction index (ICS-BOOI or initially: A-G number). In this unique study, the majority of UDS is performed by general urologists in a private practice group with those performing UDS for BPH had higher BPH surgical case volume. From 2008 to 2020, UDS utilisation declined over time although the odds of performing UDS was higher among males, older, and female pelvic medicine and reconstructive surgery subspecialty urologists. Apart from the obvious diagnosis of BOO, UDS should be considered in elderly men with LUT dysfunction to quantify detrusor voiding contraction strength as well as detrusor volume adaptation and relaxation since coexisting conditions such as detrusor overactivity or detrusor underactivity are not uncommon. Objective testing is inescapable and invaluable in secondary health care based on good practice, and functional urology should not lag behind in this aspect.

Reference: Neurourol Urodyn. 2023;42(7):1563-1568
Abstract

Uro-symphyseal fistula: A systematic review to inform a contemporary, evidence-based management framework

Authors: Patel N et al.

Summary: This systematic review assessed the aetiology, presentation, and treatment of uro-symphyseal fistula (USF) based on 31 studies in 248 cases. Common symptoms include suprapubic pain and difficulty with ambulation, with MRI confirmation in 95% of cases. The most common predisposing factor was radiotherapy for prostate cancer (93%) and previous bladder outlet endoscopic surgery was common (83%). Conservative management failed in 96% of cases with prior prostatic radiation; in these patients, cystectomy with urinary diversion (86%) was more common than bladder-sparing techniques (14%). Conservative management also failed in 72% of radiation naive patients, requiring an open fistula repair with flap (62%) or radical prostatectomy (28%).

Comment: USF is a fistulation from the urinary tract to the symphysis and is thought to occur more commonly following radiation therapy (RT) than other benign endoscopic prostate surgery. The mode of presentation is also heterogeneous, but local pain and symptoms are related to infection with osteomyelitis, abscesses, and/or cutaneous fistulation. MRI is the diagnostic investigation of choice since it offers the advantage of revealing the extent of osteomyelitis and soft tissue involvement, and surgical intervention should be considered from the outset since conservative management is often unsuccessful, although there are heterogenous treatment options from conservative management to extensive surgery with pubectomy and urinary reconstruction. In this systematic review, RT was the most common predisposing factor and among these patients, prior endoscopic bladder outlet surgery was common. Comparing those with prior prostatic radiation vs radiation-naive patients, conservative management failed in 96% compared to 72% of cases, and the more favoured treatment was cystectomy with urinary diversion (86%) versus open fistula repair with flap (62%). Clinicians should have heightened suspicion among symptomatic patients with a prior history of radiation and endoscopic bladder outlet procedures and consider early intervention. When considering a primary repair, the nature and size of the fistula must be accurately characterised, as well as assurance that the urethra distal to the fistula is patent with adequate continence and bladder capacity to allow a tension-free closure, and the underlying osteomyelitis is treated completely.

Reference: Urology 2023:178:1-8
Abstract

Comparison of surgical procedures for benign prostatic hyperplasia of medium-volume prostates: Evaluation of the causes of rehospitalization from the French National Hospital Database (PMSI-MCO)

Authors: Behr A et al.

Summary: Using 2018 data from the French national hospital data base (PMSI-MCO), this study evaluated the initial, short-term (3 months) and longer-term (4-12-month) postoperative complications necessitating rehospitalisation associated with the use of transurethral resection of the prostate (TURP; n = 46,242), Holmium laser enucleation of the prostate (HoLEP; n = 13,509), and laser vaporization (n = 7469) for the treatment of LUTs. In the TURP, HoLEP and laser vaporization groups during the initial hospitalisation, the most common complications were infections (17%, 10%, and 13%, respectively) and haemorrhagic complications (15%, 8.1% and 11%, respectively). At the initial hospitalisation, TURP performed worse than the other two procedures. At 3 and 12 months, there were little differences between the procedure in the rates of complications.

Comment: Surgical intervention remains the most effective treatment for BPH (or BPE) and in recent years, there appears to be a shift in the trend towards surgery as the primary treatment modality given the lack of medical adherence, side effects of medications, better surgical technology, and fear that delaying surgical treatment of BPH can lead to permanent damage to the detrusor muscle and subsequent poor voiding abilities despite outlet obstruction relief. Based on this French national hospital database, TURP remains the most commonly performed surgery (46,242 TURP vs 13,509 HoLEP vs 7469 laser vaporizations) and accounts for the highest complication rates in terms of infections (17% vs 10% vs 13%) and haemorrhagic complications (15% vs 8.1% vs 11%). Debate continues to rage regarding the evidence supporting or not early surgical treatment of BPE as opposed to prolonged medical therapy courses. It is undeniable that surgery can offer a quick, superior clinical efficacy and often durable improvement of LUTS/BPH. Furthermore, the cost of prolonged medical therapy beyond 5 to 10 years could represent a higher burden on the healthcare system than upfront surgical treatment. Nonetheless, surgery is not without complications and reinterventions are necessary due to subsequent BPH regrowth. Hence, equally important aspects such as treatment cost-effectiveness and patient-related factors like patient preference, desire for a permanent solution and tolerability to risk should be considered in the selection of BPH treatment modality.

Reference: World J Urol. 2023;41(9):2481-2488
Abstract

First safety outcomes for Rigicon ContiClassic® artificial urinary sphincter

Authors: Wilson SK et al.

Summary: This study evaluated a new artificial urinary sphincter (ASU) for treatment of male stress urinary incontinence (Rigicon ContiClassic®) in 116 patients (mean age 68.3 years; range 23-83 years). Implantation was most commonly used to treat urinary incontinence (58.6%) after radical prostatectomy. Revision rate was 6.90% as a result of 3 cases of fluid loss, 4 cases of iatrogenic mistaken sizing, and 1 case of patient dissatisfaction. Kaplan-Meier survival rate was 93.2% at 12 months.

Comment: The AMS 800 is considered by many as the standard of care in treating moderate to severe stress urinary incontinence in male patients. Over the years, several AUS-like devices have been developed to replicate the clinical outcomes of the AMS 800 and are designed to overcome some of the limitations of the AMS 800 device. The new Rigicon ContiClassic® AUS device was introduced worldwide 2 years ago. Whilst similar in the overall design to the AMS 800 device in that it consists of a circumferential occlusive cuff, a pressure regulating balloon, and a pump, the ContiClassic® device has several new features including a hydrophilic (HydroShield®) coating which covers the entire device system, smaller increments in diameter of the sphincteric cuff at a 0.25 cm increment between 3.5 cm and 5.0 cm cuff sizes, EasyClink® Connectors which do not require an additional assembly tool and a larger pump for device cycling. This first published paper on the ContiClassic® showed a Kaplan-Meier survival rate of 93.2% at 12 months with a revision rate of 6.90%. The ContiClassic® AUS device is designed to improve on the current AMS 800 device. Nonetheless, a longer-term study with possibly a direct comparative study against the AMS 800 device is required for this device to be considered the new standard of care.

Reference: Int J Impot Res. 2023;Aug 5 [Epub ahead of print]
Abstract