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LA TECNOLOGIA E L'UMANIZZAZIONE DELLE TERAPIE

Book of Abstracts

UrOP

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A_01

Meatoplastica - Uretroplastica - Riparazione fistole
Lisi aderenze grandi labbra in paziente affetta da stenosi serrata del meato uretrale esterno stenosi uretrale distale e fistole multiple uretroneovagina ed aderenze delle grandi labbra, dopo intervento di vaginoplastica penoscrotale per riassegnazione dei caratteri sessuali Male to Female

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OBIETTIVO

Lo scopo del lavoro è presentare la strategia diagnostica e terapeutica per gestione delle complicanze in un caso complesso dopo vaginoplastica con lembo penieno e graft scrotale per rassegnazione dei caratteri sessuali male to female

MATERIALI E METODI

Intervento di vaginoplastica con lembo penieno invertito e graft scrotale effettuato nel Marzo 2019 presso altro Nosocomio in Thailandia, la paziente viene dimessa con catetere che mantiene a dimora per 3 settimane, da sempre tessuto di granulazione a livello dell' orifizio uretrale esterno e della neovagina, trattato con antibiotici topici e lavaggio interno con Betadine per 9 mesi senza grosso beneficio.

La paziente giunge alla nostra osservazione dopo 9 mesi dall' intervento riferendo una sintomatologia cistitica, pollachiurgia, stranguria e disuria, uso notevole del torchio addominale in fase minzionale e fuoriuscita di urina in vagina, progressivo restringimento dell' introito vaginale con difficoltà alle dilatazioni meccaniche effettuate tramite dilatatori consigliati quotidianamente. All' esame obiettivo presenza di tessuto di granulazione a livello del meato uretrale esterno con stenosi dello stesso, impossibilità all'introduzione di qualsiasi catetere ureterale, presenza di 4 minutisimi tramiti fistolosi in neovagina, presenza di aderenza mediana delle grandi labbra che apparivano fuse lungo la linea mediana costituendo un setto che ostacolavo l'introito vaginale. Impossibilità in fase diagnostica di sondare la stenosi per capirne la lunghezza pre-intervento con catetere uretrale, impossibilità all' effettuazione di Uroflussimetria, Rx uretrocistografia retrograda e minzionale e Uretrocistoscopia. L'accesso chirurgico da noi effettuato è stato il seguente: mediante incisione cutanea mediana lunga circa 5 cm partendo dal meato uretrale fino ad arrivare ai tramiti fistolosi in neovagina, si effettua isolamento notevolmente difficoltoso ma "completo" dell'"uretra per fino ad ottenere un buona mobilizzazione uretrale, l' uretra distale presentava una stenosi di circa 2 cm, il tratto di uretra stenotico viene aperto e spatulato ventralmente per circa 5 cm fino a raggiungere i tramiti fistolosi evidenziabili con estrema difficoltà ma tramite utilizzo di specilli chirurgici in neovagina, riparazione dei tramiti fistolosi con Vicryl 3/0, meatoplastica con riconfigurazione del corretto posizionamento del meato uretrale circa 1-2 cm al di sotto nel neoclitoride, successiva incisione mediana cutanea per lisi aderenze delle grandi labbra con sutura trasversale, ampliando in tal modo l' introito vaginale esterno; catetere 18 ch, garza iodoformica in vagina con medicazione compressiva.

CONCLUSIONI

Non è stato possibile effettuare alcun esame diagnostico pre-intervento, la stenosi non si limitava al meato uretrale esterno ma si estendeva per circa 2 cm, l'utilizzo di specilli chirurgici in neovagina ci hanno permesso di evidenziare i tramiti fistolosi. E' necessaria una mobilizzazione uretrale per una corretta riconfigurazione del meato uretrale esterno al di sotto del neoclitoride.

L' incisione mediana cutanea per lisi aderenze delle grandi labbra con sutura trasversale ha permesso un ampliamento dell' introito vaginale esterno.

A_02

Neuromodulazione sacrale autogestita nella ritenzione urinaria non ostruttiva

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INTRODUZIONE

Con questo lavoro stravolgiamo il principio base della neurostimolazione sacrale cronica delle radici nervose e valutiamo una stimolazione da eseguire in modo acuto autogestito dal paziente prima di iniziare la minzione. Ci siamo chiesti perché stimolare in modo cronico i pazienti con ritenzione di urina e non pensare che la stimolazione cronica possa essere riservata solo ai pazienti con disturbi della fase di riempimento da vescica iperattiva? I pazienti con ritenzione di urine non presentano alcuna sintomatologia nell'intervallo di tempo tra una minzione e l'altra e quindi la loro stimolazione cronica potrebbe essere un overtreatment. La stimolazione acuta potrà sostituire la stimolazione cronica nella pratica di neuromodulazione sacrale? Valutiamo queste perplessità in questo studio retrospettivo.

OBIETTIVO

Lo scopo del nostro lavoro è quello di valutare questo nuovo metodo di neurostimolazione sacrale autogestita del paziente che accende il generatore di impulsi 15 - 20 minuti prima di ogni minzione, in base alle proprie esigenze.

MATERIALI E METODI

Da gennaio 2018 a dicembre 2020, sono stati arruolati 8 pazienti affetti da ritenzione urinaria non ostruttiva che eseguivano autocateterismo pulito, di questi 3 pazienti sono stati sottoposti solo a un intervento di primo tempo e non sono stati considerati idonei per l'impianto. Gli altri 5 pazienti: 2 pazienti (2 donne) sono stati sottoposti a neuromodulazione sacrale con inserimento nel forame sacrale unilaterale S3 dell'elettrodo quadripolare e 3 pazienti (2 donne e 1 uomo) sono stati sottoposti a neuromodulazione epidurale caudale bilaterale con elettrodi ottopolari bilaterali, collocati nello spazio epidurale caudale in un approccio anterogrado. Il work up neuro-urologico pre-operatorio comprende: risonanza magnetica del cervello e del midollo, diario minzionale di una settimana, esame urodinamico completo, esame delle urine ed ecografia delle vie urinarie negative per patologie degne di nota. Questi pazienti avevano la sensibilità propriocettiva preservata al riempimento e non mostravano un'elevata compliance del detrusore. Il follow-up post-operatorio prevede controlli settimanali per i primi 30 giorni poi trimestrali con compilazione del diario minzionale, uroflussometria e valutazione del volume residuo postminzionale. Dopo l'impianto definitivo, sono stati addestrati e dotati di un telecomando che consente loro di auto-stimolarsi accendendo e spegnendo il generatore di impulsi, offrendo loro l'autogestione in modalità di stimolazione sacrale. L'originalità di questo lavoro è stata la modalità di stimolazione che non prevede una stimolazione continua di 24 ore ma una stimolazione che il paziente stesso gestisce e che inizia 15-20 minuti prima di ogni minzione.

RISULTATI

I nostri 5 pazienti di età compresa tra 23 e 67 anni (4 donne e 1 uomo) accendono il generatore di impulsi 15-20 minuti prima della minzione e lo spengono dopo che la minzione è completa. Tutti questi pazienti in un follow-up che varia da 43 a 8 mesi mostrano un soddisfacente recupero della minzione con 4 pazienti che hanno abbandonato l'autocateterismo vescicale a causa dell'assenza di un volume residuo post minzionale significativo e un paziente che ha ridotto significativamente l'uso dell'autocateterismo che continua a eseguirlo occasionalmente per un volume residuo postminzionale che supera i 150 ml.

Se è vero che nella ritenzione di urine la neuromodulazione riesce ad inibire le contrazioni della muscolatura striata riducendo le resistenze uretrali, non capiamo perché stimolare cronicamente questi pazienti 24 ore su 24. Non abbiamo trovato in letteratura altri autori che propongono una tale stimolazione.

CONCLUSIONI

Offrire la possibilità di stimolare l'innervazione solo quando è necessario urinare ci sembra una buona alternativa alla stimolazione continua per tutta la vita. La neuromodulazione sacrale in modalità on demand può certamente essere accettata maggiormente dal paziente, riduce la neuroplasticità che influisce negativamente sulla validità del trattamento nel tempo e prolunga il tempo di esaurimento del generatore di impulsi.

A_03

Nuova modalità di stimolazione autogestita per la neuromodulazione sacrale nella ritenzione urinaria non ostruttiva

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SCOPO DELLO STUDIO

Lo scopo del nostro lavoro è quello di valutare questo nuovo metodo di neurostimolazione sacrale autogestita del paziente che accende il generatore di impulsi 15 - 20 minuti prima di ogni minzione, in base alle proprie esigenze.

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CONCLUSIONI

Offrire la possibilità di stimolare l'innervazione solo quando è necessario urinare ci sembra una buona alternativa alla stimolazione continua per tutta la vita. La neuromodulazione sacrale in modalità on demand può certamente essere accettata maggiormente dal paziente, riduce la neuroplasticità che influisce negativamente sulla validità del trattamento nel tempo e prolunga il tempo di esaurimento del generatore di impulsi.

A_04

Should be PET/TC useful in undiagnosed prostate cancer?

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Aim of the Study

Prostate cancer is the second most diagnosed cancer in males worldwide and, in Italy, the most diagnosed invasive cancer in men aged 50 to 79. Multiparametric magnetic resonance imaging (mpMRI) has become the preferred method for detecting regions of the prostate which are suspicious for cancer and, according to the international guidelines, it is currently the most comprehensive tool for noninvasive primary tumor staging of prostate cancer (PCa). However more than 20% of primary cancer are mpMRI missing [1]. The standardized uptake value (SUV) index expressed by 18F-choline Positron emission tomography–computed tomography (PET/CT) and 68Ga-PSMA PET/CT may represent the promising modality for identification of PCa in pts with persistently increased serum PSA but digital rectal examination (DRE) and mpMRI unequivocal negative. The purpose of this study is the value of the diagnostic accuracy of PET/TC in the decision making of prostate cancer diagnosis.

Materials and Methods

In the last two years on evaluation of our data, 9 patients with persistently increased serum PSA suspicious for PCa, negative DRE and negative mpMRI (PI-RADSv2 ≤ 3) underwent to 18F-choline Positron PET/CT (7 Pts) and 68Ga-PSMA PET/CT (2 Pts). The PET/TC SUV index was surprisingly high (more than 5.0). In all of these 7/9 pts did a prostate biopsy.

Results

Between January 2019 and June 2021, 9 patients (mean age 58.6 years) underwant to PET/CT (18F-choline in 7) 68Ga-PSMA PET/CT (2 pts). 7/9 pts showed considerable high SUV (> 5.0). All of these 7 pts (78 %) with a positive PET/TC underwent an ultrasound cognitive guided biopsy. 1/ 7 pt showed no pathologic findings and was subjected to strict follow-up with out-patient visits every 3 and 6 months. 6/7 pts showed istopathological prostate cancer. Pathology results were multifocal Gleason score 6 (3+3) in 4 pts and Gleason score 7 (3+4) in 2 pts. All the 6 pts underwent a robot-assisted radical prostate-ctomy.

Conclusions

18F-choline PET/CT and 68Ga-PSMA PET/CT showed high detection accuracy of PCa in patients with elevated and increasing PSA levels and an equivocal DRE and mpRMI, and it should be considered as an emerging and promising staging modality, not only for recurrent prostate cancer, but also for primary one.

Bibliography

[1] Eklund M, Jäderling F, Discacciati A, Bergman M, Annerstedt M, Aly M, Glaessgen A, Carlsson S, Grönberg H, Nordström T; STHLM3 consortium. MRI-Targeted or Standard Biopsy in Prostate Cancer Screening. N Engl J Med. 2021 Sep 2;385(10):908-920. Epub 2021 Jul 9.

A_05

An adjuvant therapy with l-Arginine 2500 mg and Tadalafil 5 mg increasese efficacy and duration of benefits of low-intensity extracorporeal shockwave therapy for erectile dysfunction: a prospective, randomized, single blinded study with one year follow-up

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Aims

There are many unexplored aspects and numerous elements to be defined in order to ameliorate and maximize the results of Li-ESWT. Objective of the present study was to investigate the efficacy and safety of a therapeutic protocol for mild and moderate ED based on the combination of Li-ESWT, tadalafil and L-arginine with one-year follow-up

Methods

Recruited patients completed at baseline two questionnaires, the IIEF-EF and the EHS, and were randomized in two groups. Men in both groups received six weekly applications of Li-ESWT employing a focused generator consisting of 3000 shockwaves delivered at an energy density of 0,25 mJ/mm2 and an emission frequency of 4 Hz. Individuals included in Group A (treatment group) received the prescription of an adjuvant oral therapy with daily Tadalafil 5 mg for three months and with daily L-Arginine 2500 mg for six months. Men in group B (control group) only received Li-ESWT. Follow up visits (FUV) were scheduled respectively one, six and twelve months after the last Li-ESWT application. At each FUV it was administered again the IIEF-EF and EHS questionnaires. The main outcome measures were the changes from baseline to every FUV in IIEF-EF and EHS scores

Results

The mean IIEF-EF score in group A was 16 ± 4, 24.8 ± 3.4, 23.3 ± 4.6 and 21,6 ± 5,5 at baseline, three, six and twelve months of follow-up while in group B the mean IIEF-EF score was 16.5 ± 4.1, 22.7 ± 4.2, 21.5 ± 4.5 and 19.5 ± 4.9. We reported an increase of mean EHS score in group A from 2,07 ± 0,72 baseline to 3.39 ± 0.59, 3.17 ± 0.67 and 2.98 ± 0.72 at various FUVs and in group B from 2,12 ± 0,80 baseline to 3.07 ± 0.78, 2,95 ± 0.76 respectively. All patients reported a statistically significant improvement in erectile function both in terms of IIEF-EF and EHS scores ($p<0,0001$)

This prospective, randomized, single-blinded study evaluated a high number of patients with one year of follow-up

Conclusion

An adjuvant daily therapy with L-Arginine 2500 mg and Tadalafil 5 mg was safe and effective in increasing the efficacy and the duration of benefits of Li-ESWT

The effects of Li-ESWT persist for up to one year from the last application but tend to decrease in intensity

V_06

Robot assisted - Buccal mucosa graft repair for proximal ureteral lesion

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OBJECTIVE:

To present a case of robot-assisted buccal mucosa graft repair for proximal ureteral lesion and report our preliminary results of this reconstructive technique.

MATERIALS AND METHODS:

We present the case of a 65 years old man affected by a fistula of proximal ureter that occurred during previous partial nephrectomy. Due to the extent of the damage we decided to perform an augmented ureteroplasty using a buccal mucosa graft.

A DaVinci Xi system was used, and 4 trocars were placed along the pararectal line, as per conventional robotic renal surgery. After lesion identification, ureter was isolated; 8 Ch JJ-stent was placed, and the damaged segment of the organ was resected. With a running suture 5/0 a roof between the two ureteral stumps was created. Buccal mucosa free graft was used to complete the ureteroplasty. A double running suture with a 4-0 Monocryl stitch held the graft in place and an omentum flap was further fold around to provide nourishment and support.

RESULTS:

from June 2018, 9 robot-assisted buccal mucosa graft ureteroplasties were performed in our center. In 5 patients, ureter was incised longitudinally without any resection, whereas in 3 cases the damaged part of the organ was removed and an anastomosis between the two stumps was performed. The median operation time was 176 minutes (IQR: 157-198) and median length of the stenosis was 27 mm (IQR 36-44) and All the patients presented an uneventful post operative course and were dismissed after 4 days (IQR: 4-5). No recurrences were observed at a median follow-up of 8 months (IQR: 5-16).

CONCLUSION:

Robot-assisted buccal mucosa graft ureteroplasty is a safe and effective option to treat long refractory mid ureteral stenosis.

A_07

Approach to upper urinary tract stones: emerging data in a high-volume activity center

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Aim of the study

Urinary tract calculi, one of the most common benign urological diseases, is seen in 12% of patients and has a recurrence rate of approximately 50%. The European Association of Urology (EAU) Urolithiasis Guidelines suggest that the primary treatment of renal stones <2 cm should include extracorporeal shock wave lithotripsy (SWL) and retrograde intrarenal surgery (RIRS), and that the primary treatment for renal stones >2 cm or too dense to be treated with any other method, should include percutaneous nephrolithotomy (PCNL). The purpose of this study is to provide insight into the treatment of upper urinary tract stones in a high-volume center with great interest to the increasingly prominent role of RIRS.

Materials and methods

A total of 168 patients who underwent surgery for upper urinary tract stones in our Urology Department between January 2018 and January 2021 (Covid time covered 10 months, 27 months total) was retrospectively screened. These patients were divided into three groups, according to the operation method. SWL, PCNL and RIRS were performed on 73, 32 and 58 of these patients, respectively. All patients had X-Ray direct urinary system or urinary system ultrasonography and spiral CT without contrast. Patients with a positive urine culture had surgery after treatment with antibiotics for an appropriate duration. The stone-free state (SFR) was determined at the postoperative third month on computerized tomography (CT).

During PCNL was used standard Amplatz dilatation equipment, a nephroscope (26 F Storz: Karl Storz GmbH & Co. KG) and a lithotripter (Swiss LithoClast Trilogy | EMS Urology) for stone fragmentation. For RIRS, the procedure was performed using a Storz FLEX-ureterorenoscope with holmium laser (Dornier Medilas H Solvo 35). Finally, the SWL was performed with **Results**.

The mean stone size was > 2.5 mm in PCNL group, ≤ 2.5 mm in RIRS group and < 1 mm in SWL group. Mean duration of operation was 28.7 ± 12 min in the RIRS group and 19.6 ± 8.9 min in the PCNL group, considering only the surgical time. The hospital stay was significantly shorter in the RIRS group (1.6 vs. 3.3 days in the RIRS and PCNL groups, respectively). Stone-free rates after one session were 85.4 % and 97.3 % of the RIRS and PCNL groups, respectively. Only 14.6 % patients need a second look in the RIRS group. Complication rates were not statistically significant in either group.

Conclusions

RIRS and PCNL were more effective than SWL to obtain a better SFR and in upper urinary tract stone and were safe and effective methods. According to our experience RIRS, compared to PCNL, offers the best outcome in terms of procedure length, radiation exposure and hospital stay, and should be considered as a possible alternative to PCNL even in calculi greater than 2 cm in centers with proven surgical experience and new very aggressive technology, especially in patient with comorbidities.

A_08

Reliability of prostate rmi in the diagnosis of prostate cancer. our experience

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AIM OF THE STUDY

In the diagnostic process of a patient with suspected prostate cancer or elevated PSA values or abnormal findings on rectal examination (DRE), MRI can play a key role in deciding whether to perform a prostate biopsy. The retrospective experience reported by the authors on 573 patients undergoing prostate MRI and subsequent prostate biopsy corroborate this finding.

The aim of our work is to evaluate the specificity and sensitivity of prostate MRI using prostate biopsies.

MATERIALS AND METHODS:

We retrospectively evaluated 573 patients undergoing prostate mapping in our Urologic Department from January 2019 to June 2021(Covid time covered 10 months, 19 months total) aged 37-86 years (mean age 68.3). 105/573 patients had not an MRI prior to prostate biopsy and were therefore eliminated from the study. The 468/573 enrolled patients had performed prostate MRI and showed signal alterations suspicious for neoplasia in morphological sequences and were classified into three groups according to PI-RADS value (Prostate Imaging Reporting and Data System): PIRADS 3, PIRADS 4 and PIRADS 5.

The pre-operative work up included the performance of: Prostate MRI, total and free PSA dosage in addition to an accurate anamnesis, objective examination with rectal exploration, renal function tests, blood count and coagulation.

There are 383 patients with PIRADS 3, 63 patients with PIRADS 4 and 22 patients with PIRADS 5. We found biopsy positivity for neoplasia in 267 out of 383 patients with PIRADS 3 corresponding to (70%) while we found biopsy positivity for neoplasia in 57 out of 63 patients with PIRADS 4 (90%) and we found biopsy positivity for neoplasia in 21 out of 22 patients with PIRADS 5 (95%). From these data it emerges that MRI is still INSUFFICIENT in defining prostate carcinoma, especially in the intermediate grades (PIRADS 3), while it retains a role in assessing other risk PIRADS. We then divided the 383 patients with PIRADS 3 into three subgroups according to PSA value. Thus, in subgroup A: 53 patients had a PSA less than 4 ng/ml, in subgroup B: 189 patients had a PSA between 4 and 10 ng/ml while in subgroup C: 141 had a PSA greater than 10 ng/ml

In these subgroups we evaluated the number of patients found to be affected by neoplasia obtaining in subgroup A 14 patients out of 53 were found to be affected by neoplasia (26%) - in subgroup B 125 patients out of 189 were found to have neoplasia (66%) - in subgroup C 128 patients out of 141 were found to have neoplasia (91%)

CONCLUSIONS:

Data processing shows that the cancer-specific sensitivity of MRI is directly proportional to PIRADS and that PSA improves specificity. The sensitivity of MRI accuracy is inversely proportional to the degree of PIRADS and that MRI with high PIRADS retains excellent specificity even in the absence of correlation with PSA. MRI remains a cornerstone of diagnostics and staging depending on the possibility of targeted MRI biopsy retrievals, however conclusions drawn from radiological images alone may show false positives as reporting by Eklund et al in 2021 [1].

[1] Eklund M, Jäderling F, Discacciati A, Bergman M, Annerstedt M, Aly M, Glaessgen A, Carlsson S, Grönberg H, Nordström T; STHLM3 consortium. MRI-Targeted or Standard Biopsy in Prostate Cancer Screening. N Engl J Med. 2021 Sep 2;385(10): 908-920. doi: 10.1056/NEJMoa2100852. Epub 2021 Jul 9. PMID: 34237810.

A_09

New drug therapy for delayed ejaculation: the birth of camaruf 100%

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Introduction

Deleyed ejaculation (D.E.) ia probably the less studied male sexual disfunction but is not a such rare disorder with a prevalence of 15- 30% in the higher groups. Current treatments have only an anectodal success or important side effects, so often patient starts only a psicosexual therapy without unrealistic results

Material and method

Camarouf is an oleoresin-based cream with capsaicin and vanilloid that has the ability to stimulate the penile nerve endings and determine an increase in the penine blood flow giving an increase in the sensation of heat. Afer signing a specific informed consent from June 2018 to October 2019, we recruited 54 patients with D.E.. Patients performed a preventive sexological, urological and hormonal evaluation to rule out such an etiology. Only 48 patients were eligible for the study and they were randomized into two study groups of 24 patients: A groups start with Camarouf cream and B that use a placebo ones. With Topiclick® the dose was standardized at 0,25ml / week,15 min before sexual intercourse. After 2 months of therapy and 1 months of wash out, groups reversed treatment. IIEF 5 questionnaire, Quol questionnaire and IELTS were administreted at 2, 3 and 7 months. T student test was used to campare Ielts ad mean Ielts (between treatment and wash out period) among two groups. Statistical analisis was performed with MEDCALC (Software, Ostend, Belgium)

Results

At 2 months of therapy group A showed a statistically difference in mean , Ielts and Quol compared with group B ($p<0,0001$) and the same was recorded by the group B at 7 months. No Ielts statistical differences was recorded in wash out period by two groups. IIEF 5 questionnaire showed no differences at 2, 3 and 7 months ($p=0,654$; $p=0,234$;$p=0,544$).Only 1 patient stopped therapy for severe penile burning, and 5 patients used cream every 2 weeks for bothersome penile inflammation.

Conclusion

Camarouf 0,006% has been shown to improve Ielts with a good patient safety and compliance profile.

A_10

First experience with supertullium fiber laser enucleation of prostate (THUFLEP)

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Introduction

The new supertullium laser has the characteristic of being effective in the treatment of urinary stones. However, the possibility of changing the pulse from continuous to pulsed and the power of 60 w can also allow the treatment of soft tissues. The purpose of the work, in our first experience, is to demonstrate the usefulness of the supertullium laser in prostatic enucleation In a center of large experience with the thulium laser

Materials and methods

We recruited 33 patients on the list for thulep surgery. Inclusion criteria was the presence of infravesical obstruction (IPSS > 20, Qmax < 10 mL/s). Erectile function (EF) was assessed using the International Index of Erectile Function and IPSS was administered (IIEF-5) both prior to endoscopic examination, and at 3 months from surgery. Mean blood loss, operative time and catheterization time was evaluated. Statistical analysis was performed from baseline to 3 months results.

Results

The mean age was 71,5 years old (±6,3yr) and the average prostate size was 83.5 ml (±9,3 ml). No statistical differences was found from the baseline of iief and iief. Mean operative time was 78 min (± 20 min). IPSS show a statistical difference from baseline at 3 months ($p<0.001$). Mean catheterization time was 1,5 dys and there was no statistical differences from baseline in IIEF at 3 monts and perioperative emoglobin. In only 1 patient there was a in only one patient there was a perforation of the capsule due to the mechanical dissection of the adenoma.

Conclusion

According to our current experience thuflep is a possible surgical technique but in surgeons with extensive experience in thulep. However, the surgical times are greater than those reported in the literature on thulep. No difference in terms of blood loss and catheterization days. In our experience, the greatest advantage is the possibility of having a tool that allows the treatment of stones and BPH.

A_11

The 5 years survival rate follow – up in patients with carcinoma in situ of the prostatic urethra undergoing bcg intravesical instillation

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AIM OF THE STUDY

Carcinoma in Situ (CIS) in the prostatic urethra is common in patients with high-grade superficial bladder cancer (9%–25%). Several authors evidenced that BCG has efficacy on CIS of the prostatic urethra. The aim of the study is to evaluate the use of intravesical Bacille Calmette-Guerin (BCG) in selected patients with CIS involving prostatic urethra in 5 yrs follow-up. Pts with stromal invasion were excluded.

MATERIAL AND METHODS

In ten yrs (2010-2020) 69 patients with high-risk superficial bladder cancer and CIS of the prostatic urethra were treated with intravesical BCG (once a week for 6 weeks, and once a month for 6 months). Transurethral resection of the prostate was performed before the instillations in all patients. Pts were followed by cystoscopy, cytology and TURP biopsy to detect persistent or progressive disease every 3-4 months for the first two years and every 6 months thereafter for a further year, included CT, PET every year in the follow up.

RESULTS

Data analysis and survival rate on 5-years follow-up were studied and 27/69 pts underwent intravesical instillation BCG in prostatic mucosal, submucosal and ductal involvement CIS of the Prostatic Urethra. During the follow-up all pts made continuous monthly BCG treatment. 7/27 patients present a complete response in the bladder and prostate since their 18-months follow-up. 12/27 had periodically tumor recurrence and they are still in endoscopic controls. 8/27 pts with residual disease in the prostatic urethra were subsequently treated with radical cystectomy and are currently free from disease. Disease-specific survival had a median follow-up of 1.8 years.

CONCLUSIONS

Intravesical BCG is a reasonable treatment option in selected patients with bladder CIS involving the prostatic urethra. Bladder preservation was successful in 19/27 on five yrs follow up. Nevertheless, a close follow-up and a strict indication to the radical cystectomy is necessary in case of persistent recurrence of disease in the urethra or stromal invasion.

A_12

Functional and sexual symptoms improvement after Rezum water therapy for the treatment of LUTS/BPE: 2 year Results from a multi-center european cohort

Siena G · Hindley R · Salamanca I · Somani BK · Viola L · Spatafora P · Sessa F · Varvello F · Maruzzi D · Ferrari G · Cindolo L

Introduction & objectives:

Transurethral resection of the prostate (TURP) represents the gold-standard treatment option for benign prostatic hyperplasia (BPH) for gland sizes up to 80 cc. This surgical technique may be associated with postoperative adverse events/sequelae, including anejaculation, erectile dysfunction, urethral strictures and incontinence. To overcome these issues ultra minimally invasive surgical treatments (uMIST) have been proposed. Among these rank transurethral thermal ablation with steam (REZUM®, Boston Scientific). This study aims to highlight the strengths and weaknesses of Rezum therapy, in order to evaluate its effectiveness and complications rates and to establish which patients may benefit most.

Materials & methods:

From June 2019 to June 2021, we prospectively enrolled 680 patients who underwent Rezum treatment. Inclusion criteria were: age ≥18 years old, International Prostate Symptom Score (IPSS) ≥ 12, prostate volume between 30 and 80 gr, peak flow ≤ 15 ml/s, post-void residual (PVR) volume < 250 ml. The follow-up was scheduled at 3, 6, 12 and 24 months after the procedure. At baseline and follow-up visit, all the patients were asked to fill the following questionnaires: IPSS, Overactive Bladder Questionnaire-Short Form (OAB-q SF), International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-SF), International Index of Erectile Function (IIEF-5) and Male Sexual Health Questionnaire (MSHQ).

Results:

Median age was 69.0 years old (IQR: 63.0-74.7), median IPSS was 22.0 (IQR: 17.0-26.0) and median prostate volume was 57.0 cc (IQR: 40.0-75.0). Median operative time was 10 minutes (IQR: 8.0-15.0) and median number of injections was 5.0 (IQR: 4.0-6.0). Patients were discharged the same day of surgery and the bladder catheter was removed after a median of 7 days (IQR: 6.0-8.5). Median peak flow and PVR significantly improved after treatment ($p < 0.01$). We also observed a significant decrease in IPSS scores and OAB-q SF during follow-up (p value <0.01). On the contrary, we did not observe changes in PSA, ICIQ-SF and IIEF-5. We did not find differences in MSHQ-ED ($p=0.14$), MSHQ-SD ($p=0.19$) and MSHQ-Satisfaction ($p=0.60$). At 12 months follow-up antegrade ejaculation after surgery occurred in 90% (612/680) ($p < 0.01$ vs. baseline). Early complications (within 1 month) were observed in 82/680 (12.0%) patients, of which 54 (8.0%) patients had dysuria and 27 (4.0%) acute urine retention.

Conclusion:

Rezum proved to be an effective and feasible technique for the treatment of BPH. The low complication rates, especially retrograde ejaculation, make it a viable method for a wide category of patients with a variety of prostate gland morphologies.

A_13

New microinvasive alternatives for lower urinary tract symtoms related to benign prostatic hyperplasia: preliminary results with water vapor therapy (REZUM) from first italian multincentric studY

G. Siena · G. Ferrari · D. Maruzzi · G. Fasolis · F. Varvello · F. Visalli · S. Rabito · S. Toso · S. Caroassai · L. Viola · F. Sessa · M. Carini · L. Cindolo

Purpose:

Lower urinary tract symptoms (LUTS) due to benign prostatic enlargement (BPE) are common in adult men and have a major impact on quality of life and healthcare costs. While surgical management of LUTS due to BPE has evolved toward minimally-invasive surgery, there is no high quality evidence for minimally invasive vapor treatment of BPE. Rezum is the latest developed minimally invasive treatment for benign prostatic hyperplasia (BPH). We aimed to carefully assess the functional outcomes of patients treated with Rezum for BPH.

Methods:

We prospectively followed 153 consecutive patients treated by Rezum at 5 institutions from June 2019 to August 2020. The International Prostate Symptom Score (IPSS), International Consultation on Incontinence Questionnaire-Short Form (ICIQ-UI SF), the Overactive Bladder Questionnaire-Short Form (OAB-q SF) score, the International Index of Erectile Function (IIEF-5) and questions 9 and 10 to assess ejaculatory dysfunction were recorded. Election criteria were age>18, no prior prostate interventions, IPSS≥13, post-void residual≤250 mL, prostate volume between 30 and 120 cc.

Results:

The median operative time was 10.5 (IQR 8.7–15) min. All patients were dismissed few hours after surgery with indwelling urinary catheter that was removed after a median of 7 (IQR 7–10) days. A signifcantly decrease of IPSS from baseline at frst ($p=0.001$) and third ($p<0.0001$) month after surgery was reported. No difference was reported in terms of ICIQ-UI SF score postoperatively. A mild reduction of the OAB-q SF score was reported at 1 month from surgery ($p=0.06$) that turned significant at 3 months postoperatively ($p<0.0001$). A slight but statistically significant increase of the IIEF-5 score was reported from baseline at 6 and 12 months ($p=0.04$). Postoperatively, patients reported a significantly decrease of ejaculatory dysfunction after alpha-blocker interruption.

Conclusion:

Rezum treatment is a feasible and effective minimally invasive option for patients with BPH symptoms and showed optimal early functional outcomes.

A_14

The transurethral water vapor ablation of the prostate with the Rezum system allows a real obstruction relief: urodynamics findings

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Background:

The efficacy of the transurethral convective interstitial radiofrequency water vapor thermal ablation of the prostate with the Rezum system for the treatment of male LUTS due to BPH is well proved. The improvement of hydrodynamic parameters obtained from a simple uroflowmetry cannot measure the effect of water vapor injection on the bladder outlet obstruction (BOO).

Methods:

This monocentric retrospective pilot study analyzes the data of pressure-flow studies performed before and after Rezum procedures in order to answer the question whether thus obtained ablation of prostate tissue has a deobstructive effect on the bladder outlet. Patients with bothering LUTS and urodynamically verified BOO were treated with convective radiofrequency thermal therapy (Rezum® system) between July 2017and February 2019. The pre-operative BOO was so defined according to the ICS-criteria and the EAU-guidelines : BOOI > 40, Schäfer grade ≥ III oder ≥ II and ICS = obstructed, CHESS ≠ A1 or B1 or A2. Each Patient underwent a TRUS and cystoscopy in order to plan the treatment correctly. Exclusion criteria were: prostate size > 120ccm, bladder stones and acute urinary infection. All Patients were treated on inpatient setting and under intravenous sedation.

Results:

17 patients were followed up with a second urodynamic study at least 3 months after the procedure. The mean age of the patients was 66,65 years, the mean prostate volume before treatment was 50cc. All procedures were safely and easily carried out without procedure-related adverse events. Before treatment, patients had a mean baseline values of BOOI 75,48 cm H2O (obstructed > 40) and mean Schäfer class of 3,53 (obstruction > class II). The evaluation of the degree of obstruction grade before and after the treatment showed significant improvements by both analyzed systems of classification for obstruction (BOOI and Schäfer-Grade).

BOOI was conspicuous lower after convective radiofrequency thermal therapy (mean value 16,85 ± 29,04 ; obstructed >40) with a mean change of -58,64 ± 42,62 (p <0,0001). The mean Schäfer-Grade showed at follow up a considerable downgrade with a mean value of 1.4706 ±0.634 (95% confidence interval), which falls entirely within the "no-obstruction" range of the Schäfer classification.

Conclusions:

These data show that the possibility to significant reduce the obstruction grade with even a single Rezum procedure is real and seems to be independent from the degree of the obstruction grade.

Table 1

Baseline population characteristics. Abbreviations: IPSS= international prostate symptoms score, QoL = Quality of Life Index, PSA = prostatic serum antigen, PVR = postvoid residual urine.

	Mean	SD
Age (y)	66,65	9,81
Prostate volume (ccm)	50	24,42
IPSS	19,44	3,74
QoL	4,06	1,06
PSA (ng/ml)	2,66	2,00
PVR (ml)	165,29	138,93

Table 2

Overview on the outcomes. Abbreviations: BOOI = Bladder Outlet Obstruction Index, IPSS= international prostate symptoms score, QoL = Quality of Life Index, Qmax = peak urinary flow, PVR = postvoid residual urine, P-Vol. = prostate volume.

Outcome Measure	Baseline	Follow up	Change	95% confidence interval	P-value
BOOI	75,48 ± 33,91	16,85 ± 29,04	-58,64 ± 42,62	-80,55 to -36,72	<0,0001
Schäfer - Grade	3,53 ± 0,43	1, 47 ± 0,63	- 2,06 ± 1,43	-2,80 to -1,32	<0,0001
IPSS	19,44 ± 3,74	9,06 ± 5,74	-10,38 ± 5,03	-13,06 to -7,694	<0,0001
QoL	4,06 ± 1,06	1,69 ± 1,14	-2,37 ± 0,88	-2,847 to -1,903	<0,0001
Qmax	11,38 ± 6,02	15,97 ± 7,24	4,63 ± 4,60	2,18 to 7,082	0,0011
PVR	165,29 ± 138,93	67,65 ± 85,62	-97,65 ± 119,2	-158,9 to -36,36	0,0038
P-Vol.	50 ± 24,42	20 ± 13,52	-25,71 ±15,5	-33,67 to -17,74	<0,0001

A_15

Greenlight laser photovaporization of the prostate in high-medical-risk patients: analysis of the global greenlight group (GGG) database

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Introduction

Previous analyses of the safety and effectiveness of GreenLight photoselective vaporization of the prostate (PVP) in high-medical-risk (HMR) patients were limited by their small sample size and the ability to adjust for important confounders. We sought to characterize the adjusted outcomes of GreenLight PVP in HMR patients using data from the largest international database.

Methods

Data were obtained from the Global GreenLight Group (GGG) database which pools data of eight high-volume, experienced surgeons, from a total of seven international centers. All men with established benign prostatic hyperplasia who underwent GreenLight PVP using the XPS-180 W system between 2011 and 2019 were eligible for the study. HMR patients were defined as patients with ASA 3 or greater and were compared to non-HMR patients. Analyses were adjusted for patient age and prostate volume.

Results

In the HMR group, patients on average were older and had smaller prostates than the non-HMR control group. Preoperatively, HMR patients had greater PVR and worse QoL. Compared to non-HMR patients, transfusions occurred more frequently (2.6% vs. 0.14%, p<0.01) and the odds of readmission were more elevated [OR 2.0, (95% CI 1.4–2.8, p<0.01)] among HMR patients. Twelve months postoperatively, HMR patients experienced more improvement in QoL than in the control group [+0.54 (95% CI 0.07–1.0, p=0.02)]. PVR also decreased 93.1ml more in HMR than in non-HMR patients after 12 months (95% CI 33.6–152.6, p<0.01). PSA and Qmax change did not differ significantly between both study arms.

Conclusion

We found that GreenLight PVP is effective in improving functional outcomes in higher-risk patients with severe systemic disease. Though absolute risks remain low, GreenLight PVP is associated with higher odds of transfusion and readmission. The findings of our study reaffirm current guidelines that propose PVP as a viable treatment option for HMR patients.

INTRODUCTION

The prevalence of benign prostatic hyperplasia increases with age. It is estimated that 50% of the male population has pathological BPH by the age of 60.[1] With aging populations and longer life expectancies, older and potentially more comorbid men will require treatment of their lower urinary tract symptoms secondary (LUTS) to BPH. While trial of medical therapy is indicated in these patients, most will require or opt for surgical intervention due to persisting LUTS or to avoid side-effects or for high discontinuation rate.[2–4]

New modalities and approaches have expanded the indications for the surgical treatment of BPH . For example, GreenLight photovaporization of the prostate (PVP) has been shown to reduce the risk of intraoperative bleeding and postoperative hematuria in patients requiring anticoagulant and/or antiplatelet therapy.[5,6] GreenLight PVP has also been shown to be safe and effective in multimorbid individuals.[7,8]

However, previous literature examining outcomes of high-medical-risk (HMR) patients undergoing surgical treatment of their LUTS/BPH was limited by small sample sizes and lack of granular clinical information resulting in limited ability to adjust for confounding. As such, we sought to further characterize the adjusted outcomes of GreenLight PVP in HMR patients using data from the largest international GreenLight experience collaboration, the Global GreenLight Group (GGG).

METHODS

Data Source

Data were obtained from the GGG database.[9] It is an international multicenter database which collects data on BPH patients treated with GreenLight PVP using the XPS-180 W system performed by high-volume, experienced surgeons. At the time of analysis, 3809 men with established BPH who underwent treatment between 2011 and 2019 were available. Patients undergoing hybrid procedures with multiple modalities or techniques are not included in this database.

Cohort Selection

Patients were excluded if there was a previous history of transurethral resection of the prostate (TURP), known prostate cancer, previous pelvic radiation, known neurological disorders, or missing (ASA) score.

Definition of High Medical Risk

Patients were deemed to be of high medical risk if their ASA score was equal to or greater than 3 following the literature.[7] The control group, composed of non-HMR patients, had an ASA score of 1 or 2. ASA score of 1 is defined as a healthy patient without comorbidities, ASA 2 is a patient with a systemic disease that is mild or well-controlled, ASA score of 3 is a patient with a severe systemic disease, and ASA 4 is a patient with a severe systemic disease that is a constant threat to life.[10] ASA is

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a commonly used tool to characterize preoperative risk. ASA score has similar accuracy for prediction of morbidity and prolonged length of stay to other commonly used comorbidity indices such as the frailty index and the Charlson-comorbidity index but outperforms them in prediction of mortality.[11]

Covariates

Covariates of adjusted analyses were age and prostate size as measured via transrectal ultrasound (categorized as 30–80 cc, 80–150 cc, ≥ 150 cc).

Statistical Analysis

Means and standard deviations were reported for continuous variables. Categorical variables were presented as frequencies and proportions.

In unadjusted analyses comparing the outcomes of HMR patients to that of non-HMR ùpatients, two-sided t-test, Pearson chi-square, and Wilcoxon rank-sum were used for continuous, dichotomous, and non-parametric outcomes, respectively. In adjusted analyses, multivariable linear regression models adjusting for age and prostate size were fitted to compare continuous outcomes base on HMR status. For dichotomous outcomes, multivariable logistic regression models adjusting for the two covariates were used to estimate the odds of the outcome in HMR patients compared to non-HMR patients. For rare outcomes (transfusions and hematuria), we used Firth's multivariable logistic regression, again adjusting for age and prostate size. Non-parametric outcomes were log-transformed for analysis but not presented in the log scale for inter-pretability.

Statistical analyses were performed using Stata version 14.0 (StataCorp, Texas, USA). The threshold of significance was set at a two-sided $p < 0.05$.

RESULTS

Baseline Characteristics

We identified 626 HMR patients with ASA category III or higher and 1514 patients with ASA category I or II. Among HMR patients, 606 (96.8%) had a score of III and 20 (3.2%) had a score of IV. HMR patients were on average older (75.9±8.2 years vs 68.0±8.3 years, p<0.01) with less voluminous prostates (70.6ml vs 75.4ml, p=0.01) than the control group. Considerably more HMR patients were undergoing anticoagulation therapy than non-HMR patients (49.4% vs 23.0%). BMI between HMR and control groups were similar (27.2 vs 26.5 respectively, p=0.09). Preoperative measures of PSA, IPSS score, and Qmax were similar between both groups, but PVR was greater in HMR patients (389.4ml vs 265.5ml, p<0.01). QoL was significantly poorer in HMR patients (5.1 vs 4.6, p<0.01). Baseline characteristics are presented in Table 1.

Unadjusted Perioperative and Functional Outcomes

Operative time (p=0.09), lasing time (p>0.99), and delivered energy (p=0.20) were similar between HMR and control patients. HMR patients had a median hospital stay of 2 days, compared to 1 day for control patients (p<0.01). Transfusion occurred in 2.6% of HMR men compared to 0.14% in control patients (p<0.01). Readmission within a 30-day post-op window period was twice as likely to occur for HMR patients compared to control group patients (26.3% vs 12.4%, p<0.01). Hematuria was not significantly different between both groups (p=0.17). IPSS score decreased more in control group patients at 6-months, however no difference was observable after one year. PVR improved more in the HMR group one-year after PVP (320.6ml vs 228.7ml at 12-months, p<0.01) while the increase in Qmax was more elevated in the control patients (13.7ml/s vs 11.5ml/s, p<0.01). Unadjusted perioperative outcomes can be found in Table 2.

Adjusted Perioperative and Functional Outcomes

After adjusting for age and prostate volume, operative time was still not significantly different between control and HMR patients (p>0.05). However, patients in the HMR group had more energy delivered than patients in the control group [+18.3kJ (95% CI 2.0–34.6, p=0.03)]. Hospital LOS was 14% longer than control patients (95% CI 8%–22%, p<0.01). Transfusions were more frequent among HMR patients [OR 7.8, (95% CI 1.9–32.1, p<0.01)]. Similarly, readmission rates were more elevated in the HMR group compared to the control group [OR 2.0, (95% CI 1.4–2.8, p<0.01)]. Hematuria rates did not vary significantly between groups [OR 1.2 (95% CI 0.8–1.7, p=0.33), and neither did the number of fibres [+1% (95% CI -2%–4%, p=0.49)].

With non-HMR patients as a reference and adjusting for age and prostate volume, IPSS scores did not significant differ at 6 months [-0.45 (95% CI -1.5–0.60, p=0.40)] or 12 months post-op ([+0.48 (95% CI -0.78–1.7, p=0.45)]. While change in QoL re-mained similar at 6 months, at 12 months, HMR patients reported more improvement compared to control patients [+0.54 (95% CI 0.07–1.0, p=0.02)]. PSA remained comparable at 6 months [-0.24 (95% CI -5.4–4.9, p=0.93)] and 12 months ([-2.5 (95% CI -7.1–2.1, p=0.28)]. In the HMR group, PVR decreased 98.5ml more than in control patients at 6-months (95% CI 44.5–152.5, p<0.01) and decreased 93.1ml more at 12 months (95% CI 33.6–152.6, p<0.01). There was no significant difference between Qmax at 6 months and 12 months after adjusting for age and prostate volume (p=0.21 and p=0.23, resectively).

DISCUSSION

As the distribution of BPH patients shift towards older age and increased comorbidities, it is important that surgical treatment options are available and safe for HMR patients.[12] GreenLight PVP is an appealing intervention due to its hemostatic properties and relatively low risks of complication in patients undergoing anticoagulation therapy.[5,13,14] We further characterized the efficacy of GreenLight in HMR patients, adjusting for known confounders by leveraging the largest international experience with GreenLight PVP.

In the present study, we found that complications were uncommon globally, but were relatively increased in HMR patients. Additionally, we show that functional outcomes were comparable between both HMR and non-HMR patients, with either no difference or significantly more improvement in the HMR group when adjusting for age and prostate size. As such, GreenLight PVP can be offered to HMR patients. This is in line with AUA guidelines which state that PVP should be considered for patients considered medically complicated, including patients taking anticoagulants.[15] EAU guidelines echo the same recommendation for patients with prostates less than 80ml.[16]

After one year of follow-up, changes in functional outcomes were comparable between groups or favored HMR patients despite baseline differences favoring non-HMR patients. Rajih et al. also reported that all evaluated clinical outcomes in HMR patients were significantly improved at 6 months versus baseline.[7] The same study reported postoperative PVR was comparable between both HMR and control groups. Similarly, the present study showed that PVR decrease was 93.1ml more in HMR patients than control patients at 12 months. This can be attributed to the baseline difference of over 100ml between the HMR and non-HMR arms.

By definition, HMR patients have severe systemic comorbidities, which may render them more susceptible to intraoperative and postoperative complications compared to patients with an ASA category of I or II. While complications were not common, they occurred more in HMR patients. The odds of requiring blood transfusion were increased by almost eight-fold for HMR patients, although the absolute risk in both populations were quite low (2.6% vs. 0.14%). This finding is distinct from a study by Barco Castillo et al., which did not discover any differences in transfusion rates in a cohort of 675 GreenLight patients.[17] Despite more intraoperative complications, HMR patients in the present study had a median hospital LOS that was only a day longer on average compared to non-HMR patients. Readmissions were more frequent in HMR patients; HMR patients had double the odds being readmitted after 30-days than non-HMR patients. However, hematuria rates were comparable in both study arms.

Our study is not without limitations. First, our study is limited by its retrospective nature. For example, it is likely that HMR patients that underwent GreenLight PVP differed significantly from HMR patients that were not offered surgery, limiting the generalizability of our findings to all HMR patients. Second, the GGG database reflects the outcomes of experienced surgeons operating at high-volume centers, which may not be representative of the lower-volume centers or more novice surgeons. Third, we only present outcomes up to 12 months – studies with longer follow-ups are needed. Despite its limitations, our study represents the largest experience of GreenLight PVP in HMR patients. The large sample size permitted adjustments for known confounders, namely age and prostate size.

C!ONCLUSION

We found that GreenLight PVP is effective in improving functional outcomes in higher-risk patients with severe systemic disease. Though absolute risks remain low, GreenLight PVP is associated with higher odds of transfusion and readmission. Our study can help counsel HMR patients considering GreenLight PVP for the treatment of their LUTS/BPH. The findings of our study reaffirm current guidelines that propose PVP as a viable treatment option for medically complicated patients.

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A_16

Early apical, en bloc enucleation, green light laser: a safe and effective procedure also for large volume prostates

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Purpose:

Green Light laser enucleation of the prostate (GreenLEP) is an endoscopic treatment to treat bladder outlet obstruction in men with large prostate (>100cc). Herein, we describe our GreenLEP series describing its safety and efficacy.

Materials and Methods:

Between February 2014 and April 2019, 120 patients from a single center, underwent en-bloc GreenLEP with early apical release. All procedures were performed with the AMS XPS laser generator (set: 120 W for vaporization and 20 W for coagulation). Morcellation was carried out with the Wolf Piranha morcellator. Data concerning the pre-, intra- and postoperative outcomes were prospectively collected. The follow-up data at 6, 12 months and at the last control were collected.

Results:

The median age was 66.0 (IQR: 61.0-71.0) years; 37.5% of the patients were under antiplatelet/anticoagulants therapy, 15.0% had indwelling catheter history. The median prostate volume and the baseline PSA value were 98.5 ml (IQR 83.0-130.0) and 4.2 ng/ml (IQR: 3.2-6.8), respectively. The median operative and lasing time were 65.0 (IQR: 51.0-83.5) and 6.0 (IQR: 6.0-10.0) minutes, respectively. In the post-operative period 1 patient was transfused. The median follow-up was 18.0 (IQR: 12.0-39.5) months. All patients had significant improvement in terms of improvement of uroflowmetry [median from 9 ml/sec (IQR 7.8, 11.0) to 20.0 (IQR 18.0, 22.0), p <0.001] and symptoms control [IPSS median score from 26.0 ml/sec (IQR 22.0, 28.0) to 7.0 (IQR 6.0, 8.0), p <0.001]) over time. After 12 months 1 patient complained of stress incontinence (1 pad/day) and 1 of "de novo" wet urgency.

Conclusion:

En-bloc GreenLEP with early apical release is a safe and effective procedure also for large volume prostates. It allows us to limit the use of laser energy and shorthen the operating times with stable and satisfactory long-term outcomes.

A_17

Single surgeon experience with water vapor injection (Rezum System)

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Purpose:

To evaluate short- and mid-term results of water vapor therapy (Rezum system) for BPH/LUTS in single surgeon cohort of italian patients.

Materials and methods:

Patients with BPH and moderate to severe LUTS (n = 84) who underwent Rezum treatment from September 2019 onwards were included in this prospective study, in a signle center. Preoperatively the patients were evaluated by standard laboratory tests, uroculture, digital rectal examination, prostate specific antigen, transrectal prostate ultrasound, uroflowmetry, post-void residual and IPSS, OAB-q SF, ICIQ-UI SF and IIEF- 5. The presence of ejaculatory dysfunction was recorded. The patients were periodically followed .

Results:

All patients were successfully treated. Mean operative time and hospital stay were 10 minutes and 0.9 days, respectively. The catheter was removed after a median of 7 days. A statistically significant($p < 0.05$) improvement of Qmax, IPSS and QoL, OAB-q SF, ICIQ-UI SF and IIEF- 5 from baseline to last control follow up was reported. Postoperatively, patients reported a significantly decrease of ejaculatory dysfunction (de novo dry ejaculation reported in 3 patients) and 90% affirmed a slight to significant improvement after treatment. Early (≤30 days) post-operative complications were reported in 70% of patients being all grade 1 Clavien–Dindo but 4,7% developed AUR and 4,7% had UTI. Only 1 patient experienced clots retention requiring hospitalization without transfusion. At last follow up no late (>30 days from surgery) serious related-adverse events (AEs) occurred. 2 patients underwent re-operation.

Conclusion:

Water vapor therapy is an effective and safe method of BPH/LUTS treatment in the short- and mid-term. This is an innovative way to surgically treat all patients suffering from BPH/LUTS needing a restoration or a preservation of antegrade ejcaculation.

Introduction & objectives:

Transurethral resection of the prostate (TURP) represents the gold-standard treatment option for benign prostatic hyperplasia (BPH) for gland sizes up to 80 cc. This surgical technique may be associated with postoperative adverse events/sequelae, including anejaculation, erectile dysfunction, urethral strictures and incontinence. To overcome these issues ultra minimally invasive surgical treatments (uMIST) have been proposed. Among these rank transurethral thermal ablation with steam (REZUM®, Boston Scientific). This study aims to highlight the strengths and weaknesses of Rezum therapy, in order to evaluate its effectiveness and complications rates and to establish which patients may benefit most.

Materials & methods:

From June 2019 to June 2021, we prospectively enrolled 680 patients who underwent Rezum treatment. Inclusion criteria were: age ≥18 years old, International Prostate Symptom Score (IPSS) ≥ 12, prostate volume between 30 and 80 gr, peak flow ≤ 15 ml/s, post-void residual (PVR) volume < 250 ml. The follow-up was scheduled at 3, 6, 12 and 24 months after the procedure. At baseline and follow-up visit, all the patients were asked to fill the following questionnaires: IPSS, Overactive Bladder Questionnaire-Short Form (OAB-q SF), International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-SF), International Index of Erectile Function (IIEF-5) and Male Sexual Health Questionnaire (MSHQ).

Results:

Median age was 69.0 years old (IQR: 63.0-74.7), median IPSS was 22.0 (IQR: 17.0-26.0) and median prostate volume was 57.0 cc (IQR: 40.0-75.0). Median operative time was 10 minutes (IQR: 8.0-15.0) and median number of injections was 5.0 (IQR: 4.0-6.0). Patients were discharged the same day of surgery and the bladder catheter was removed after a median of 7 days (IQR: 6.0-8.5). Median peak flow and PVR significantly improved after treatment ($p < 0.01$). We also observed a significant decrease in IPSS scores and OAB-q SF during follow-up (p value < 0.01). On the contrary, we did not observe changes in PSA, ICIQ-SF and IIEF-5. We did not find differences in MSHQ-ED ($p=0.14$), MSHQ-SD ($p=0.19$) and MSHQ-Satisfaction ($p=0.60$). At 12 months follow-up antegrade ejaculation after surgery occurred in 90% (612/680) ($p < 0.01$ vs. baseline). Early complications (within 1 month) were observed in 82/680 (12.0%) patients, of which 54 (8.0%) patients had dysuria and 27 (4.0%) acute urine retention.

Conclusion:

Rezum proved to be an effective and feasible technique for the treatment of BPH. The low complication rates, especially retrograde ejaculation, make it a viable method for a wide category of patients with a variety of prostate gland morphologies.

A_18

Functional and sexual symptoms improvement after rezum water vapor therapy for the treatment of LUTS/BPE: 2 year results from a multi-center european cohort

Siena G · Hindley R · Salamanca I · Somani BK · Viola L · Spatafora P · Sessa F · Varvello F · Maruzzi D Ferrari G · Cindolo L

Introduction & objectives:

Transurethral resection of the prostate (TURP) represents the gold-standard treatment option for benign prostatic hyperplasia (BPH) for gland sizes up to 80 cc. This surgical technique may be associated with postoperative adverse events/sequelae, including anejaculation, erectile dysfunction, urethral strictures and incontinence. To overcome these issues ultra minimally invasive surgical treatments (uMIST) have been proposed. Among these rank transurethral thermal ablation with steam (REZ M®, Boston Scientific). This study aims to highlight the strengths and weaknesses of Rezum therapy, in order to evaluate its effectiveness and complications rates and to establish which patients may benefit most.

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