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abstracts

libro degli Abstracts e degli Autori

Istruzioni
per la consultazione degli abstracts

Alle pagina 3 e 4 l'**Indice:**

- **- L'indice delle sessioni cui afferiscono gli abstract, con *la sala, il giorno e l'ora* delle presentazioni**
- **- L' elenco degli Autori e delle loro corrispondenti sessioni**

Per agevolare l'identificazione, il ***giorno*** e la ***sala*** di presentazioni degli abstracts sono caratterizzate da **colori colori colori** specificamente differenti.

Le **sessioni** di Abstracts sono identificate con colori in base al **tipo di presentazione**:

Blu i video

Arancione le comunicazioni

Gli **abstracts** sono esposti consecutivamente nelle rispettive sessioni di presentazione, come da programma. Pertanto a seconda ***delle sessioni*** (comunicazioni o video), ***del giorno, dell'ora e della sala,*** **potete identificare l'abstract desiderato.** La responsabilità dei **testi** (linguaggio e contenuti) è esclusivamente degli Autori.

Nell' **indice degli Autori** potete trovare l'elenco degli Abstract che ciascuno ha presentato con le indicazioni delle pagine dove sono pubblicati.

Indice

sabato 21 maggio

19 maggio 2022

13:00 - 14:00

sala A

Video 1-
Chirurgia Renale Clamp On/Clamp Off

Moderatori: Pietro Belmonte, Mario Falsaperla

1. #138: SUTURELESS PURELY OFF-CLAMP ROBOTIC PARTIAL NEPHRECTOMY: TECHNIQUE AND PERIOPERATIVE OUTCOMES

L. Misuraca[1], A. Brassetti[1], U. Anceschi[1], G. Tuderti[1], R. Mastroianni[1], M. Ferriero[1], A.M. Bove[1], S. Guagliano-ne[1], M. Gallucci[1], G. Simone[1]

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Introduction & Objectives

In the last years, sutureless approach has gaining popularity for its feasibility and safety, together with promising functional outcomes and shorter operative time and length of stay compared to standard technique with renorraphy. In this video we describe surgical steps, perioperative and short term functional outcomes of sutureless off clamp robotic partial nephrectomy.

Materials & Methods

Surgical steps were demonstrated. The highlighted case was an endophytic 3 cm left renal mass with a RENAL score equal to 9. Preoperatively, a mixture of lipiodol and indocyanine green was delivered transarterially to mark the lesion. Gerota's capsule was opened and NIRF was used to easily individuate the tumor location.

Tumor margins were scored with monopolar coagulation, taking advantages from ICG guidance to better define tumor edges. An enucleation plane was progressively developed, taking care of all arterial feeders which were coagulated.

Two suction devices with irrigation were used simultaneously to maximize the visualization of the enucleation plane which was developed leveraging the ICG guidance. Monopolar coagulation of the resection bed started from the upper part of the resected area, moving concentrically towards the bottom until optimal haemostasis was reached. Finally, near infrared fluorescence was used to inspect renal parenckhyma perfusion. Renal capsule was closed with hem-o-lok and a drain was left in place. Perioperative outcomes were reported and compared with cohort of renorraphy cases after selecting two cohorts with a propensity score matched comparison accounting for imbalances in baseline variables.

Results

Out of 548 patients, 180 were sutureless. The Trifecta achievement rate was significantly higher in the sutureless group (93% vs 83%).

A propensity score matched analysis, generated 2 cohorts of 80 patients homogeneous for age, gender, ASA score, baseline eGFR, tumor size and surgical complexity.

Patients receiving sutureless partial nephrectomy had shorter hospital stay, negligible complications and increased likelihood of achieving Trifecta.

However, At Kaplan Maier analysis, significant CKD stage migration free survival probabilities were comparable between groups.

Conclusions
Patients receiving sutureless off-clamp robotic partial nephrectomy had negligible complications and minimal incidence of perioperative renal function decrease.
Compared with renorraphy cohort, sutureless approach significantly increased the probability to achieve the Trifecta.
Longer follow-up is needed to assess potential benefits of this procedure on long-term outcomes.

2. #183: NEFRECTOMIA PARZIALE DESTRA LAPAROSCOPICA PER RECIDIVA LOCALE DI 3 CM

F. Tedesco[1], A. Civitella[1], F. Esperto[1], F. Prata[1], P. Tuzzolo[1], V.G. Crimi[1], F. Machiella[1], R.M. Scarpa[1], R. Papalia[1]
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In questo video mostriamo l'esecuzione di una nefrectomia parziale laparoscopica off-clamp dopo recidiva locale.
Paziente di 49 anni ricoverato nel nostro reparto per una recidiva locale di 30 mm di un carcinoma renale destro. La creatinina sierica preoperatoria era di 0,98 mg/dl con eGFR di 109,6 ml/min. L'intervento è stato eseguito per via transperitoneale. La doccia parietocolica, chiusa nel precedente intervento, è stata incisa con forbici monopolari esponendo il profilo renale. La presenza di tessuto fibroso dovuto al pregresso intervento ha reso più complessa la preparazione e l'isolamento della massa. Dopo aver esposto completamente la massa, il parenchima renale è stato inciso con uncino laparoscopico e l'enucleazione è stata completata con il Ligasure. Il sanguinamento dal letto tumorale è stato controllato con l'uso del Ligasure e con il posizionamento di un singolo punto transfisso.
Il tempo operatorio è stato di 115 minuti. La perdita di sangue stimata di 250 cc. Non sono state necessarie trasfusioni intraoperatorie né postoperatorie. Il paziente è stato dimesso in seconda giornata post-operatoria. La creatinina sierica e l'eGFR al momento della dimissione erano paragonabili a quelle preoperatorie, rispettivamente 1,09 mg/dl e 98,6 ml/min.

3. #176: NEFRECTOMIA PARZIALE LAPAROSCOPICA OFF-CLAMP PER TUMORE RENALE DI 8 CM IN PAZIENTE CON RENE A FERRO DI CAVALLO

F. Prata[1], A. Civitella[1], F. Esperto[1], P. Tuzzolo[1], V.G. Crimi[1], A. Iannuzzi[1], A. Travino[1], R.M. Scarpa[1], R. Papalia[1]
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Nel video mostriamo una nefrectomia parziale laparoscopica in un paziente con rene a ferro di cavallo. Uomo di 71 anni con riscontro incidentale di tumore renale di 8 cm, PADUA score di 13. Creatinina sierica pre-operatoria 0.98 mg/dl. Abbiamo eseguito una TC addome con ricostruzioni in 3D per pianificare l'intervento chirurgico. Da queste ricostruzioni, sono state evidenziate 7 arterie peri-tumorali. Il paziente è stato posto in decubito laterale destro. La flessura colica sinistra è stata incisa, permettendoci di esporre solo la parte del rene necessaria all'enucleazione. Sono state isolate le arterie peri-tumorali e l'uretere sinistro. La neoformazione è stata incisa circonferenzialmente con forbici monopolari e l'enucleazione eseguita con Ligasure con tecnica off-clamp. La procedura è stata completata con successo in 152 minuti, perdite ematiche stimate 350 ml. Il paziente è stato dimesso in 3° giornata post-operatoria, la creatinina sierica era di 1.12 mg/dL. L'esame istologico deponeva per carcinoma a cellule renali. A 3 mesi dall'intervento, è stata eseguita una TC che non evidenziava recidive locali o metastasi. In conclusione, la nefrectomia parziale laparoscopica off-clamp in rene a ferro di cavallo è possibile e le ricostruzioni 3D pre-operatorie sono un utile strumento per la pianificazione dell'intervento chirurgico.

4. #193: SUTURELESS PURELY OFF-CLAMP ROBOT-ASSISTED PARTIAL NEPHRECTOMY: NUCLEAR RENAL SCAN FINDINGS FROM A PILOT STUDY

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Background:
partial nephrectomy (PN) is the gold standard for renal tumors, whenever feasible. Compared with suture-PN, the sutureless technique reduces operation time, decreases costs and may provide superior functional outcomes as segmental renal artery ligation caused by the suture might lead to the loss of functioning parenchyma. However, feasibility and safety of this technique remain controversial. We present surgical end functional outcomes of sutureless purely off-clamp robot-assisted PN (socRPN).

Methods:
a continuous series of patients treated with socRPN at the 2 participating institutions were included in the study.
Baseline demographic and anthropometric characteristics were recorded, together with perioperative data and histopathologic results. All the patients underwent a nuclear renal scan at baseline and 1 month after PN.

Results:
10 patients were included in this pilot study, with a median age of 68 yrs (IQR: 58-70. All the treated tumors were stage cT1, with

a median size of 30 mm (IQR: 24-38) and RENAL score 5 (IQR: 4-7). At baseline global glomerular filtration rate was 95.3 ml/min (IQR: 63.5-97), 43.3 ml/min (IQR: 31.2-52) in the affected kidney. After socRPN, global filtration rate decreased to 91.9 ml/min (IQR: 71.3-96), 43.0 ml/min (IQR: 34.8-46.9) in the treated kidney; compared to preoperative values, the difference was not significanlty different (all p > 0.05). Median operation time was 55 min (IQR: 40-62.5); only two robotic instruments were used in each procedure and no advanced hemostatic agent was needed. Estimated blood loss was 65 ml (IQR: 61-69): no intra-/post-operative complication occurred.

Conclusion:
socRPN is safe and effective for cT1 tumors and renal function appears substantially unchanged after surgery.

5. #136: EIGHT-YR EXPERIENCE OF ROBOTIC IVC THROMBECTOMY: SURGICAL TECHNIQUE, PERIOPERATIVE AND ONCOLOGIC OUTCOMES

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[2] *University of Southern California (Los Angeles)*

Introduction & Objectives
First robotic nephrectomy with IVC thrombectomy was performed in 2008, while the first series was reported in 2011. Since then, several surgeons at various institutions have adopted robotic surgery for these complex procedures. Safety, feasibility and short-term outcomes of robotic radical nephrectomy and inferior vena cava thrombectomy for level 2 and level 3 IVC thrombi has been reported.
In this video, we illustrate key surgical steps to manage level 2 and 3 ICV thrombi and we report outcomes of our cumulative experience started in 2014.

Materials & Methods
The video reports surgical steps as follows: IVC isolation, cranial thrombus edge control, tumor thrombectomy, cavoscopy, cava suture, IVC flow restoration control. Tips and tricks were illustrated, including the use of intracaval balloon, transesophageal ultrasound control, near infrared fluorescence imaging to manage thrombus edge and to ensure proper restoration of IVC flow. Perioperative and oncologic outcomes were reported.

Results
Our series comprises 37 patients, 18 of which with level 3 thrombi. Median operative time was 360 minutes. Perioperative complications occurred in around 50% of patients, with only 4 cases of Clavien Grade complication ≥ 3. Median follow up time was 29 months. 3-yr overall survival, cancer specific survival and metastasis free survival was 54.7%, 55.7% and 22%, respectively.

Conclusions
Robotic IVC thrombectomy is a feasible and safe procedure, even for level 2 and 3 thrombi. Surgical technique is skill demanding and should be not performed outside tertiary referral centers.

6. #180: NEFRECTOMIA PARZIALE DESTRA LAPAROSCOPICA OFF-CLAMP IN PAZIENTE CON RISCONTRO DI DOPPIA NEOFORMAZIONE RENALE

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In questo video mostriamo l'esecuzione di una nefrectomia parziale laparoscopica off-clamp di due neoformazioni renali.
Paziente di 51 anni ricoverato nel nostro reparto per riscontro TC di doppia neoformazione renale destra: 6 cm a livello del polo superiore e 4 cm a livello del polo inferiore. La creatinina sierica preoperatoria era di 0,88 mg/dl con eGFR di 100,6 ml/min. L'intervento è stato eseguito per via transperitoneale. Il rene destro è stato isolato e capovolto per evidenziare la neoformazione del polo superiore. Il parenchima renale è stato inciso circonferenziamente con l'ausilio di forbici monopolari attorno la neoformazione per permetterne l'enucleazione. La procedura è stata eseguita senza il clampaggio dell'ilo renale. Per poter evidenziare meglio il piano di clivaggio, è stato utilizzato un tamponcino laparoscopico e successivamente la massa è stata enucleata con l'ausilio del Ligasure. L'emostasi è stata ottenuta con un singolo punto transfisso. Per la neoformazione del polo inferiore è stata utilizzata la stessa tecnica. Il tempo operatorio è stato di 120 minuti. La perdita di sangue stimata di circa 200 cc. Non sono state necessarie trasfusioni. In conclusione, la nefrectomia parziale laparoscopica di due neoformazioni renali è possibile senza il clampaggio dell'ilo renale.

19 maggio 2022

13:00 - 14:00

sala B

Comunicazioni 1-
Uretra e Dintorni

Moderatori: Roberto Migliari, Antonio Ruffo

Focus on: *mesh in urologia: un luminoso passato?*
Roberto Migliari

1. #121: TREATMENT OF URINARY FISTULAE WITH GENITAL AND PERINEAL RECONSTRUCTION IN PATIENT WITH SPINA BIFIDA

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Objective

Spina bifida is one of the possible neural tube defects that can occur during early embryological development. The incidence of spina bifida worldwide still ranges from 0.3 – 4.5 per 1,000 births.
Our objective was to treat a patient previously underwent 34 surgeries in order to correct the different urological defects.

Materials and Methods

A 44 years old patient with spina bifida previously underwent artificial urinary sphincter implantation to treat his incontinence due to neurogenic bladder. The artificial sphincter was removed few months later due the erosion of the posterior urethra and bladder neck. Successively an ultrasound scan was performed and it showed several bladder stones that were treated endoscopically with laser lithotripsy. At our examination patient had fimosis, he was incontinent and he reported to use urocondom for voiding.
At physical examination he presented different fistulae. An excretory urography was performed and it detected two vesicocutaneous fistulae and an urethrocutaneous fistula. Patient underwent a genital and perineal reconstruction, with removal of the fibrotic tissues from the penis. scrotum and perineum. The fistulae were closed. The urethral and vescical defects were sutured. Foley catheter ch 16 was kept for 2 weeks.

Results

The urinary fistulae were closed and patient could void normally in the urocondom. He was satisfied with his aesthetic and functional results.Patient is scheduled for bladder augmentation with Mitrofanoff stoma.

Discussions

Treatment of urological conditions due spina bifida is a very challenging field for reconstructive urologist.
Many complications can occur such as fistulae, bladder stones, perforation, bladder reaugmentation, laparotomy for bowel obstruction, and benign and malignant bladder tumors.

Conclusion

Urinary fistulae correction in patient underwent several surgery is a challenging procedure due the high risk of failure and recurrence. In this case the removal of fibrotic and granulomatous tissue was mandatory to prevent a recurrent fistulae.

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2. #205: NEW APPROACH WITH FAT GRAFTING IN THE MANAGEMENT OF URETHRO-GENITAL LICHEN SCLEROSUS DISEASE

E. Berdondini[1], G. Muto[2], A. Gallina[3], S. Maruccia[4], M. Silvani[5], A. Giacobbe[6], G. Reale[7], G. Muto[5]

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Objective

Lichen sclerosus (LS) is a chronic inflammatory disease of the skin that often involves the genital area. Patients report significant symptoms: itching, bleeding, pain during sex, skin bruising and tearing. Moreover, patients may refer for obstructive urinary symptoms in case of urethral involvement.
Often patients are subjected to several treatments and surgery still represents a debatable option.
Autologous nanofat grafting (ANG) is a widespread treatment to several pathologies with scars and pain. It has been proposed for the treatment of burns, scars, radiodermatitis, osteoarthritis, in Dupuytren's disease, for vaginal atrophy associated with LS, because of its regenerative property due to neovascularization and reabsorption of scar tissues. We report our preliminary results with ANG in the treatment of recurrent LS with genital and/or urethral involvement.

Materials and Methods

From 2019 to 2020, 20 pts with recurrent histologically diagnosed LS were treated with ANG injection. All pts underwent previous topic treatments.
By means of lipoaspiration, emulsification and filtering, we obtain the fat mixing for injection. In our study, 6 female pts underwent ANG for severe genital LS while 5 male pts underwent extended circumcision and ANG for the same disease. Moreover, 6 male pts with urethral strictures underwent first stage with or without buccal mucosa graft urethroplasty and ANG, while 3 male pts underwent dorso-lateral urethral reconstruction with buccal mucosa graft according to Kulkarni's technique, first stage penile urethroplasty according to Johanson's technique and ANG. All pts were followed with medical assessments and uroflowmetry at 3, 6,12 and 18 months.

Results

Mean age was 65 yrs (25 to 79). Mean stricture length was 9 cm (2 to 18 cm). Mean operative time for ANG was 30 min. After urethroplasty, a 14 Ch Foley catheter was left in place for 5 weeks in long reconstructions while catheter was removed after 2 to 8 days in the short reconstructions. No peri- or postoperative complications occurred. Mean follow-up was 14 months (6 to 24 mo). After 3 months follow-up, we observed a significant improvement in tissue quality. Patients reported a complete recovery of urinary flow and sexual function, with 17 patients that reported complete resolution of symptoms. In 3 patients initially treated with 5cc ANG, we demonstrated a recurrent stricture after three months. These 3 pts were treated successfully with a second treatment with 20cc of ANG, with optimal results.

Discussions

Regenerative surgery is an emerging multidisciplinary field that has the potential to transform the surgical treatment for several diseases and injuries. Adipose tissue is abundant, available, accessible and 100% biocompatible and it also represents a stem cell depot.
Nanofat has multiple regenerative properties, it is liquid with a homogenous consistency. Due to these features, it is particularly adaptable to many uses. Considering this wide range of applicability of its reconstructive and regenerative potential, its use has already been described in literature in various disciplines such as the treatment of burns, scars, radiodermatitis, osteoarthritis and even for Dupuytren's disease.

Conclusion

The ANG represents a new promising treatment in the management of LS, opening the opportunity to regenerate tissues instead of substituting them with a graft. It is mandatory to follow the right steps to prepare ANG and adapt the fat grafting to the clinic case. Long-term follow-up with larger series of pts are mandatory in order to better evaluate ANG results.

3. #204: FEMALE URETHROPLASTY TECHNIQUE ACCORDING TO THE BEST AVAILABLE EVIDENCE: A SINGLE CENTRE EXPERIENCE

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Objective
Female urethroplasty is still a rarely performed surgery. The objective of urethroplasty is to restore urinary flow, to maintain the urethral axial integrity and to reduce the ischemic damage, in order to avoid complications. The aim of our study was to evaluate the results of 3 different techniques for female urethroplasty in terms of functional results and associated complications.

Materials and Methods
From 2017 to 2021, 67 female pts underwent urethroplasty by a single operator (EB). Indications for surgery was urethral stricture in 52 patients and urethral diverticula in 15 cases. Patients were treated as follows: 13 pts underwent dorsal buccal mucosa graft urethroplasty (BMGU) for distal stricture, 39 pts underwent ventral BMGU for medium-proximal stricture, 15 pts underwent lateral urethrotomy approach to include the urethral opening of the diverticula, diverticulectomy and lateral urethroplasty with or without fat graft. Fat graft was obtained by abdominal liposuction to well cover loss of tissue substance after big diverticulectomy, instead of Martius flap. All patients were investigated with clinical history, physical examination, uroflowmetry, post-voiding residual urine, urethroscopy, magnetic resonance imaging in case of urethral diverticula. All patients referred significant urinary symptoms and dyspareunia.

Results
Mean patients age was 47 yrs (14 to 68 yrs). Mean stricture length was 1,5 cm (1 to 2,5 cm). 48 pts underwent previous urethral dilatations and 8 previous urethral surgery in other places. Mean operative times resulted 70 min (45 to 90 min). Mean buccal mucosa graft lenght was 2 cm (1,5 to 3 cm). Catheter was left in place for 4 weeks after surgery. No perioperative or postoperative complications occurred. All patients recovered a normal urinary flow and sexual function. At a mean follow-up of 27 months (6 to 46 mo), no pts developed any urinary fistula or any grade of definitive incontinence. One patient of dorsal BMGU develop restricture after 18 mo and underwent a redo ventral urethroplasty with good result.

Discussions
The latest literature reported a three-dimensional reconstructions of the female urethral sphincter and described it as a superior, horseshoe or omega-shaped part that covers the urethra and an inferior part that covers the anterolateral aspect of the urethra and the lateral aspect of the vagina. With the three approaches described, we were able to avoid the sphincter and its damage.

Conclusion
Our data demonstrates that female urethroplasty is a safe and effective procedure, with optimal functional results and a very low rate of complications, even if further follow-up is needed. There is an urgent need of a standardized approache that may carefully select female patients eligible for this complex surgery.

4. #133: ADJUSTABLE BULBOURETHRAL MALE SLING (ARGUS): SINGLE CENTER EXPERIENCE AFTER 40 CASES OF MODERATE-TO-SEVERE MALE STRESS URINARY INCONTINENCE (SUI) AFTER PROSTATIC SURGERY

D. Martens[1], F. Borgatti[1], M. Benedetti[2], R. Arnaudi[1], M. Potenzoni[1], N. Uliano[1], S. Destro Pastizzaro[1], F. Cantoni[1], A. Prati[1], S. Micali[2]

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Objective
To report our experience using the Argus perineal sling from July 2015 to January 2021 for male stress urinary incontinence (SUI) after prostatic surgery. To evaluate the efficacy, safety and health related quality of life in patients undergoing this procedure.

Materials and Methods
The positioning of an adjustable bulbourethral male sling provides a longitudinal perineal incision, exposure of the bulbospongiosus muscle and the application of the sling bearing on it with transobturator passage of the two extremities with out-in technique,

thanks to apposite devices. To modulate the bearing tension on the urethra, with a rigid cystoscope the Retrogade Leak Point Pressure is measured, increasing it by 10-15 cm of H20 from baseline. We retrospectively evaluated the results of this implant performed by the same operator on 40 patients who presented post-operative medium to severe SUI (> = 3 pads/day) and a low quality of life (QoL > = 3 IPSS scale). Intraoperative and postoperative complication were evaluated. Postoperatively each patient was reassessed according to the following parameters: number of pads consumed/ die and QoL.

Results

After the intervention, 24 of 40 patients (60% of the total) were totally continent (< 1 pad / day) after 1 month, and 12 of 40 patients (30%) requires 1 pad/day. At 6 Month from the intervention 30 of 40 patients were totally continent (< 1 pad / day) with a QoL <=1 and at 12 Month 29 of 40 patients were totally continent (< 1 pad / day) with a QoL <=1. Only 8 patients of 40 requires regulation of the device (at 12 months form the intervention), and after regulation, all the 8 patients were totally continent (< 1 pad / day) with a QoL <=1 after 3, 6 and 9 months. We have only one substitution of the device thanks to a flawed device.

Discussions

Following prostatic surgery, 5-35% of cases will experience SUI, mainly due to a reduced urethral resistance to abdominal pressure, secondary to the intrinsic sphincter deficiency. Generally, the first step to manage SUI consists in conservative therapy, such as pelvic muscle training, biofeedback and electrostimulation. The failure of the conservative therapy has brought to the development of several surgical treatments, most of them are carried out when there is a stability of the continence status for at least 12 months. Nowadays, the gold standard for the treatment of post-surgical SUI is still represented by the artificial urinary sphincter (AUS), which has been shown to offer long-term durable results but with high costs and a rate of about 37% of postoperative complications, such as mechanical failure, erosion, or infections. For this reasons in the last 10 years it is increasing the use of the sling procedure like Argus sling, which seems to assure satisfactory results in the short term. Our work shows that Argus sling procedure is a valuable option for SUI and can offer good outcomes at short term also in patients with severe post-surgical SUI.

Conclusion

The results of our study show that this sling represents a valid device of treatment for the moderate and severe post-surgical male SUI. Thanks to the possibility of adjusting the tension of the sleeve in a «second look», it is possible to adapt the device according to the results obtained. It would be necessary to broaden the study by involving other centres to assess the clinical benefits of this sling in post-surgical male SUI.

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5. #75: CASE REPORT OF PARAURETHRAL LEIOMYOMA IN A 52 YEAR-OLD WOMAN: CLINICAL AND DIAGNOSTIC FEATURES AND SURGICAL TREATMENT.

N. Fiorello[1], A.. Di Benedetto[2], A. Mogorovich[2], D. Summonti[2], C.A. Sepich[1]

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Objective

Our study consists in the description of a rare paraurethral lesion. A comparison with the data in the literature was made and we described the characteristics of the lesion, studied through MRI, and the surgical management of the excision.

Materials and Methods

A 52-year-old woman was referred to our observation due to the presence of a vulvar mass found after autopalpation. She has no lower urinary tract symptoms (LUTS) , nor dyspareunia and metrorrhagia. She underwent a transvaginal pelvic ultrasound, which was reported as chestnut-shaped mass, well circumscribed and vascularized. She denied pelvic pain or pressure. She was then underwent to pelvic magnetic resonace imaging (MRI) which showed a well encapsulated solid formation, about 24 mm in size, with right distal anterolateral paraurethral site. This formation showed uptake of contrast medium, with a compressive-dislocative effect on the urethra, without involvement of the sphincters. No signs of lymphadenopathy.

Results

The patient was subsequently referred to the definitive resection. The surgery was performed in a lithotomy position, after the insertion of a bladder catheter for safety and as a reference for the urethra. A right paraurethral incision was performed to reach out to the mass, carefully not to injure the urethra, labia majora or the underlying vaginal wall. Then an en-block resection was performed. The procedure was well tolerated under spinal anesthesia and discharge occurred after 24 h, after removing the bladder catheter. No signs of haematuria nor symptoms of incontinence were reported in the following weeks. Pathology of the excised specimen demonstrated complete resection of a benign,submucus leiomyoma.

Discussions

From among all the leiomyoma cases reported to date, the most common site of occurrence has been in the genital tract (95%), while the remainder are scattered over various sites, including the skin (230 cases), gastrointestinal tract (67 cases), and bladder (five cases) [1]. Although leiomyomas are very common in organs such as the uterus, the presentation of a urethral leiomyoma, as found in the present case, is very rare. Categorized as deep tissue leiomyomas, urethral leiomyomas are much larger than their superficial counterparts, and usually display a greater spectrum of histological changes; therefore, it is important to clearly distinguish them from leiomyosarcomas, which are statistically more common in deep soft tissue [7].The surgical treatment is interesting because, although it was a small mass and benign in nature, it is a rare lesion for which there is no standardized technique. Moreover, being in an area very near to the sphincters, the probability of causing an injury and subsequent incontinence is not irrelevant.

Conclusion

Urethral leiomyomas are a very rare disease whose causes are still unknown. The description of these lesions is however important to create a scientific path that can clarify the causes and evolution. It can also represent an evolution for imaging through MRI, improving its framework and distinguishing it from malignant tumors that require another surgical strategy. Finally it is an important challenge for the urologist or gynecologist, because the surgical performance requires anatomical and functional knowledge being an anatomical area of multidisciplinary interest.

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6. #147: THE SELF EXPANDABLE URETERAL PROSTHESYS ALLIUM FOR THE TREATMENT OF POST OPERATIVE URETERAL STRICTURES

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[2] Università La Sapienza, Dipartimento di Urologia (Roma)

Objective

Ureteral strictures are severe and difficult to treat disorders and significantly affects the quality of life of patients. Usually the definitive resolution required laser incision or surgical reconstructive procedures or ureteral stent replacement. In our experience we evaluate the use of new expandable ureteral stent (ALLIUM®) in the post endourological ureteral strictures as alternative to standard ureteral stent or reconstructive surgery.

Materials and Methods

From April 2017 to May 2021, 172 patients were enrolled in the study and underwent to endoscopic positioning of the urinary tract selfexpandable prosthesys Allium® for different ureteral disorders We selected 97 out of 172 patients with ureteral strictures post-ureterolithotripsy. In this group the location and the lenght of the strictures, the presence and the grade of hydroneprosys were evaluated In these patients an ureteral balloon dilatation was always performed and the positioning of the Allium was obtaining by both endoscopic and X ray control. The lenght and the design of the Allium depended on the location and the lenght of the strictures. All the patients were followed up by ultrasound adn KUB after 30 , 90 and 180 days. The removal of the the Allium system dipended on the severity of the stricture and ranged between 6 – 36 months.

Results

At the end of the study 71 out of 83 patients (85.5%) showed the absence of hydronephosis and resolution of the stricture. 14 patients are still in evaluation . On 12 patients we reported a failure of the treatment. We reported 3 cases of stent migration and no infective complications were reported.

Discussions

The reasons of the failure of the treatment were evaluated. 1 Failure due to the uncorrect positioning of the Allium (migration or less radial force) 2.Failure due to uncorrect baloon dilatation (no dilatation or lower atm applied) 3. Failure of the indication: 8 out of 10 strictures with a lenght of 4 cm (6 upper and 2 medial ureter) 4. Earlier removal? 5. Time of injury/Allium insertion. The main part of the failure regarded the first phase of the learning curve.

Conclusion

The selfexpandable ureteral prosthesys Allium® can be considered an option in the treatment of postoperative ureteral strictures with a succes rate of 85.5%. It requires a short learning curve, it has minimal post-operative complications and lower negative impact on the quality of life of patients.

Reference

1.Bahouth Z, Meyer G, Halachmi S, Nativ O, Moskowitz B. Multicenter experience with Allium ureteral stent for the treatment of ureteral stricture and fistula Harefuah. 2015 Dec;154(12):753-6, 806.

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7. #158: THE LONG-TERM OUTCOMES OF TRANS-OBTURATOR MIDURETHRAL SLINGS IN PATIENTS WITH DIFFERENT BMI

E. Illiano[1], F.. Trama[1], E. Costantini[1]

[1] AOSP Santa Maria (Terni)

Objective

The aim of this study was to evaluate the long-term outcomes in female patients with different body mass index (BMI) affected by stress predominant urinary incontinence who underwent trans-obturator mid-urethral sling (TOT).

Materials and Methods

This is a prospective study on women who underwent "out-in" TOT between 2003 and 2018. Exclusion criteria were: women with a history of radical pelvic surgery; previous POP surgery; neurological disease; the presence of POP stage 2 or greater. Follow-up visits were scheduled at 1 month, 6 months,1 year, then annually, with a final visit performed in September-October 2020. Women underwent physical exam, they completed the UDI6, IIQ-7 and PGI-I questionnaires. They were divided in 3 groups based on BMI (normal weight, (BMI 18.5-24.99)(A) ,overweight (BMI 25-29.99)(B), obese (BMI ≥30) (C)). Objective cure for SUI was defined as the absence of urine leakage during the CST. Subjective cure was defined by a "no answer" to question 3 of the UDI-6 questionnaire. The severity of complications was classified by the ICS/IUGA classification of mesh complications.

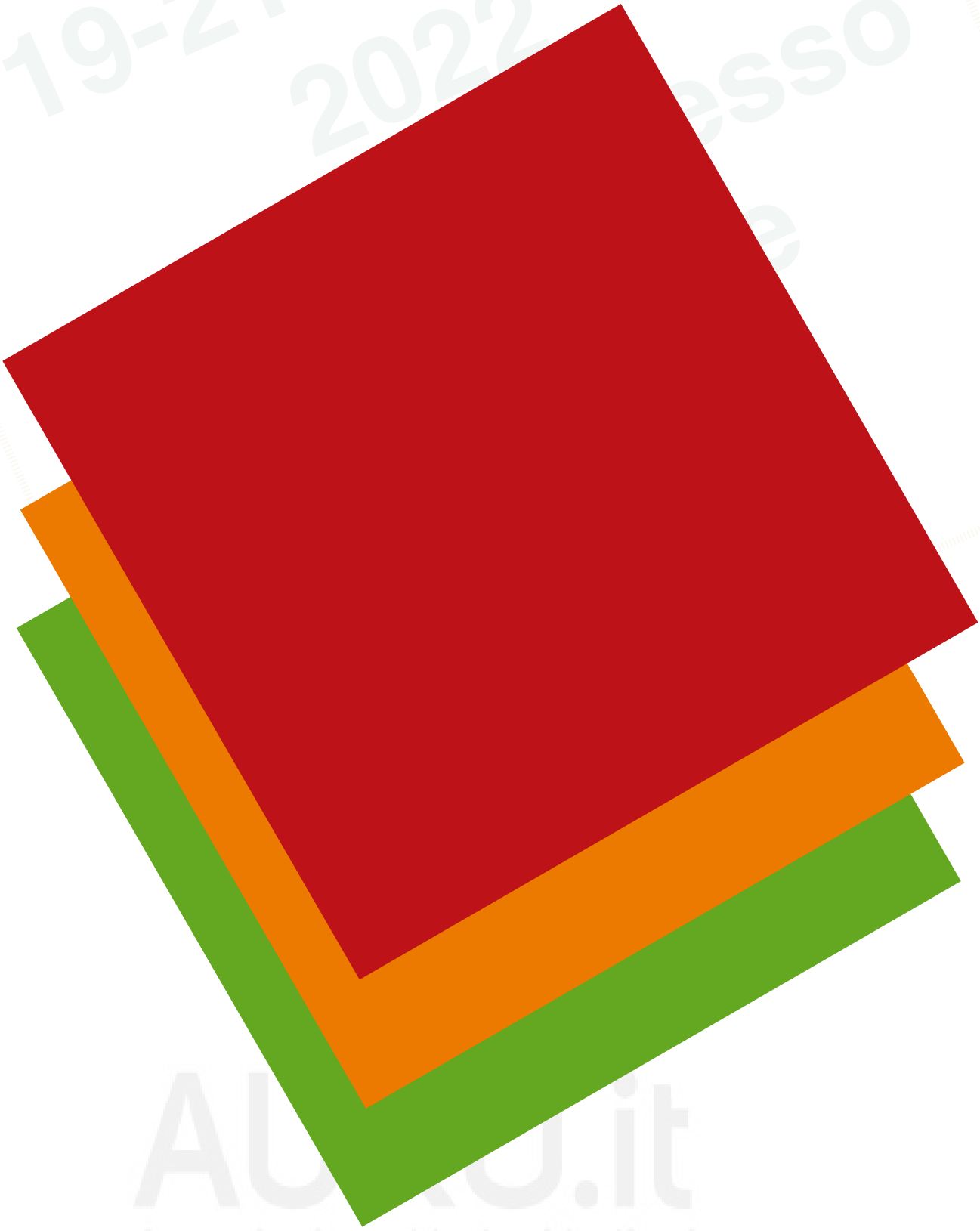
Results

We analyzed 369 patients. Mean follow up was 134 months (range 24-216), mean age was 58.9 ±10.9. Patient reported outcome measures for stress urinary incontinence inversely correlated with body mass index. At last visit the success rates were: Group A 87 %,Group B 72.7%,Group C 66.2%. At last visit women with BMI ≥25 had higher rate of persistence of mixed urinary in-

continence compared to women with BMI<25 (Group A 4%,Group B 13.3%,Group C 22.1%, A vs B p=0.04; A vs C p<0.0001; B vs C p=0.04); Group B and C had higher persistence of storage symptoms than Group A (Group A 32.5%,Group B 44%,Group C 42.6%, A vs B p=0.026; A vs C p=0.09; B vs C p=0.48). The persistence of voiding symptoms, the rate of de novo storage and voiding symptoms does not increase with increasing BMI.
Both in Group A and B there were 2 sling exposure (2BT3S1), treated surgically; in Group C: 2 cases of which only one (2CaT3S1) treated. As BMI increased PGI-I score declined.

Conclusion

The long term success rate of TOT in patients with BMI≥25 was lower compared to the normal-weight women, but the complication rate was low in all groups.



19 maggio 2022

14:00 - 15:00

sala A

Video 2-
Chirurgia Ricostruttiva

Moderatori: Elisa Berdonini, Umberto Di Mauro

Focus on: *stenosi dell'uretra femminile*
Elisa Brendolini

1. #130: BLACK-STAR® DOUBLE J MAGNETIC STENT PLACEMENT DURING ROBOTIC PYELOPLASTY SURGERY: OUR EXPERIENCE

G. Colalillo[1], A. Asimakopoulos[1], S. Khorrami[2], G. Pirola[2], F. Annino[2]

[1] Fondazione PTV Policlinico Tor Vergata, Unità di Urologia (Roma)

[2] Ospedale San Donato, Azienda USL Toscana Sud-Est, Unità di Urologia (Arezzo)

The Black-Star® Double J Magnetic Stent (MBS) UROTECH is a polyurethane (MD) medical device with a small magnet attached to the endovesical loop. Stent removal is accomplished by a magnetic retrieval catheter (MRC) with Tiemann tip, allowing simplified removal without a fibroscope and extraction forceps.
We describe the placement of the Black-star stent during robotic pyeloplasty surgery in a young man.
The difficulty of the placement is related to the interaction that the magnet of the stent exerts on the robotic instruments that could make the manoeuvre more investigative than the placement of traditional stent. The presence of a stent, placed previously, could simplify the maneuver because the size of magnet could stop in a stenotic ureter. On the basis of our experience, the use of Magnetic Stent has proved to be feasible and safe during robotic surgery and we recommend it in cases where the stent has to be maintained for a few weeks as is indicated for patients undergoing Pyeloplasty.

2. #91: TRATTAMENTO DELLA STENOSI URETRALE FEMMINILE. URETRO-PLASTICA CON INNESTO DORSALE DI MUCOSA BUCCALE

A. Ruffo[1], N. Stanojevic[2], F. Riccardo[1], F. Esposito[1], F. Trama[3], G. Romeo[4], F. Iacono[5]

[1] Casa di Cura Nostra Signora di Lourdes (Napoli)

[2] Urogenital Center (Belgrado)

[3] Università degli Studi di Perugia (Perugia)

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In questo video viene mostrato un intervento di Uretropalstica con innesto dorsale di mucosa buccale in una paziente di 38 anni con stenosi uretrale. L›intervento inizia con un›incisione semicircolare soprameatale. L›uretra viene mobilizzata dorsalmente fino alla porzione prossimale della stenosi.

Viene praticata un›incisione sagittale dorsale dell›uretra stenotica. La mucosa buccale viene suturata dorsalmente con suture Vicryl 5.0. Un catetere Foley ch 16 viene lasciato per 2 settimane.

3. #101: ROBOTIC URINARY UNDIVERSION: TRANSFORMING A FUNCTIONALLY COMPROMISED ORTHOTOPIC ILEAL NEOBLADDER IN ILEAL CONDUIT

G. Colalillo[1], A. Asimakopoulos[1], S. Khorrami[2], G. Pirola[2], F. Annino[2]

[1] *Fondazione PTV Policlinico Tor Vergata, Unità di Urologia (Roma)*

[2] *Ospedale San Donato, Azienda USL Toscana Sud-Est, Unità di Urologia (Arezzo)*

We present two cases of undiversion of a modified Y-neobladder to ileal conduit. Both undiversions were performed at about 1 year from the initial surgery due to malfunction of the neobladder, characterised by recurrent nfection in one case and Ileo-neobblader fistula in the other case. Moreover the presence of bilateral hydronephrosis and urinary incontinence with associated vesicoureteral reflux, necessitating permanent catheterization.
The surgical steps required both for the demolition of the neobladder and the reconstructive phase of the ileal conduit are described. The surgery resulted of high complexity, being performed in patients who had received previous major abdominal surgery and consequently it was hindered by severe intrabdominal adhesions and extensive fibrotic phenomena. In the first case the left ureter was identified with extreme difficulty since it was not transposed and extremely fibrotic; due to its short length, a longer ileal conduit was created and the ureters were separately reimplanted according to Nesbit. In the second case, a Wallace II ureteral reimplantation was performed due to the left ureter already transposed in the previous sugery.
The procedure is feasible and safe, however it should be proposed in high volume centers and only for benign cases.

4. #169: ROTTURA SPONTANEA DI ANGIOMIOLIPOMA

M. Falsaperla [1], A. Di Dio [1]

[1] *Ospedale ARNAS Garibaldi Nesima (Catania)*

Paziente di anni 31 affetta da angiomiolipoma dx sottoposta a scleroembolizzazione, giunga al ps per rottura di angiomiolipoma gigante con ematoma esteso retroperitoneale

5. #189: WEIGERT-MEYER THE LAW AND THE EXCEPTION: FIRST LAPAROSCOPIC FINDING OF DISTAL SUPERNUMERARY URETER

J. Durante[1], M. Simone[2], M. Santarsieri[2], G. Pomara[2]

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Objectives
In this video we show the case of a 70 y.o. gentleman undergoing a robot-assisted radical cystectomy due to a muscle-invasive bladder cancer (staged T2 at endoscopic resection). CT scan confirmed a localized disease, revealing a possible duplicated renal system.
Materials & Methods
During the isolation of the distal left ureter we ran across a double ureter, not reported at imaging. We identified a second left ureter, proximally blind-ended but distally reaching the bladder, where a double orifice was evident. We had not performed the first endoscopic resection and no information about was available before the operation. A guide wire was inserted in both ureters to evaluate their patency.
Results
Final pathology report was consistent with ureteral tissue, thus confirming the diagnosis made by us during surgery.
Conclusions
Ureteral duplications are not so rare. They mainly respect the Weigert-Meyer rule. More commonly encountered exceptions are ureteral triplication and the two systems alternated mouth. To our knowledge this case is the first report of a partial double ureter (not connected to the pelvis) depicted during a laparoscopic procedure. An embriological explanation may refer to a lower renal bud incompletely developed or gone wasted.

19 maggio 2022

14:00 - 15:00

sala B

Comunicazioni 2-
Squeeze the Prostate!

Moderatori: Mario Melis, Michele Potenzoni

1. #206: HEAD-TO-HEAD COMPARISON BETWEEN THE DIAGNOSTIC ACCURACY OF 68GA-PSMA PET/CT AND PELVIC MP-3TESLA MRI IN PATIENTS WITH BIOCHEMICAL/CLINICAL SUSPICION OF CLINICALLY-SIGNIFICANT PROSTATE CANCER: A PER-PATIENT AND PER-LOBE ANALYSIS

M. Celli[1], R.. Gunelli[2], F. Ferroni[1], A.. Vici[2], P. Caroli[1], O.. Saleh[2], L. Fantini[1], V. Rossetti[1], U. De Giorgi[1], D. Barone[1], V.. Di Iorio[1], G. Paganelli[1], F. Matteucci[1]

[1] *Istituto Romagnolo per lo Studio dei Tumori "Dino Amadori" - IRST IRCCS (Meldola)*

[2] *Ospedale Morgagni-Pierantoni, AUSL Romagna, Unità di Urologia (Forlì)*

Objective

To evaluate the diagnostic performance of PSMA PET and pelvic mpMRI in detecting clinically-significant prostate cancer (CS-PCa) in patients with biochemical / clinical abnormalities

Materials and Methods

102 patients (age range: 47-78 years; mean: 63 years) with clinical / biochemical abnormalities suspicious for CS-PCa (median PSA: 6.0ng/ml; IQR: 4.1; median PSA F/T: 14.0%; IQR: 5.7; median PSAdensity: 0.10ng/ml/g; IQR: 0.07) were prospectively enrolled. For each patient both PSMA PET and mpMRI were performed and independently reported within 6 six weeks prior to biopsy. Imaging outcome was binarily scored (PET positive for SUVmax > 7; mpMRI positive for PIRADS score 4 and 5) according to lobe laterality (right / left lobe). Systematic 12-segments and target prostate biopsies were used as a standard of truth and CS-PCa was defined as any tumour focus of ISUP grade ≥ 2 or bilateral tumour involvement. PSMA PET and mpMRI diagnostic accuracies were calculated on a per-patient and per-lobe basis

Results

CS-PCa was correctly identified in 33 patients and correctly excluded in 38 patients by means of mpMRI; in 21 patients mpMRI tested falsely positive and falsely negative in 10 patients. PSMA PET correctly identified CS-PCa in 27 patients and correctly excluded disease in 51 patients; PSMA resulted falsely positive in 10 patients and falsely negative in 14 patients.

The per-patient diagnostic accuracy comparison between PSMA PET and mpMRI returned a sensitivity of 65.9% and 76.7%, specificity of 83.6% and 64.4%, positive predictive value of 73.0% and 61.1% and negative predictive value and 78.5% and 79.2%,

respectively. The per-lobe diagnostic accuracy comparison between PSMA and mpMRI returned a sensitivity of 48.6% and 65.3%, specificity of 86.6% and 76.7%, positive predictive value of and 65.4% and 62% and negative predictive value of 76.3% and 79.2%, respectively

Discussions

PSMA PET performed significantly better than mpPMRI only in terms of per-patient specificity (83.6% versus 64.4%) and positive predictive value (73.0% versus 61.1%); PSMA PET sensitivity and negative predictive value were inferior to mpMRI both on a per-patient and on a per-lobe basis

Conclusion

PSMA PET seems to hold a complementary role only as a specificity enhancer in patients with unproven CS-PCa and positive mpMRI findings prior to biopsy sampling

Reference

1) Ahmed AU, Bosaily AES, Brown LC et Al. Diagnostic accuracy of multi-parametric MRI and TRUS biopsy in prostate cancer (PROMIS): a paired validating confirmatory study. Lancet 2017; 389: 815–22
2) Li Y, Han D, Wu P et Al. 68Ga-PSMA-617 PET/CT with mpMRI for the detection of PCa in patients with a PSA level of 4–20 ng/ml before the initial biopsy Scientific Reports (2020) 10:10963

2. #207: HEAD-TO-HEAD COMPARISON BETWEEN THE DIAGNOSTIC ACCURACY OF 68GA-PSMA PET/CT AND PELVIC MP-3TESLA MRI IN PATIENTS ON ACTIVE SURVEILLANCE: A PER-PATIENT ANALYSIS AND ASSESSMENT OF FACTORS INFLUENCING PSMA PET POSITIVE OUTCOME

M. Celli[1], R. Gunelli[2], F. Ferroni[1], C. Salararis[2], P. Caroli[1], U. Salomone[2], L. Fantini[1], V. Rossetti[1], U. De Giorgi[1], D. Barone[1], V.. Di Iorio[1], G. Paganelli[1], F. Matteucci[1]

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[2] Ospedale Morgagni-Pierantoni, AUSL Romagna, Unità di Urologia (Forlì)

Objective

To evaluate the diagnostic performance of PSMA PET and pelvic mpMRI in detecting clinically-significant prostate cancer (CS-PCa) in patients on active surveillance and factors influencing PSMA PET positive outcome

Materials and Methods

26 patients on active surveillance for clinically non-significant PCa were prospectively enrolled (age range: 44 – 76years; mean age: 65years) with clinical / biochemical abnormalities suspicious for CS-PCa (median PSA: 5.2ng/ml; IQR: 1.7; median PSA F/T: 16%; IQR: 6.0; median PSAdensity: 0.09ng/ml/g; IQR: 0.1).

Each patient underwent PSMA PET and mpMRI within 6 six weeks prior to repeat biopsy, scheduled as per active surveillance protocol. PSMA PET and mpMRI were independently reported and binarily scored (PET positive for SUVmax > 7; mpMRI positive for PIRADS score 4 and 5). Systematic 12-segments and target prostate biopsies were used as a standard of truth and CS-PCa was defined as any tumour focus of ISUP grade ≥ 2 or bilateral tumour involvement. PSMA PET and mpMRI diagnostic accuracies were calculated on a per-patient basis.

Non-parametric statistics (Mann-Whitney test, Fisher's Exact test) were used to identify factors associated with PSMA PET positive outcome, including: screening PSA, PSA free-to-total ratio (PSA F/T), PSA density, prostate volume, history of prior repeat biopsy, ongoing therapy for benign prostate conditions, MRI outcome, age, administered PSMA activity

Results

CS-PCa was correctly identified in 6 patients and correctly excluded in 11 patients by means of mpMRI; in 7 patients mpMRI tested falsely positive and falsely negative in 2 patients.

PSMA PET correctly identified CS-PCa in 4 patients and correctly excluded disease in 15 patients; PSMA resulted falsely positive in 1 patient and falsely negative in 6 patients.

On a per-patient analysis the diagnostic accuracy comparison between PSMA PET and mpMRI returned a sensitivity of 40.0% and 75.0%, specificity of 93.8% and 61.1%, positive predictive value of 80.0% and 46.2% and negative predictive value 73.1% and 84.6%, respectively.

A positive PSMA PET was more likely found in those patients with higher PSA density (median PSA density 0.204ng/ml/g [IQR: 0.049] versus 0.079ng/ml/g [IQR: 0.078]; p: 0.013) lower PSA F/T (median PSA F/T: 11.0% [IQR: 8.3] versus 17.0 [IQR: 6.5]; p: 0.017) and in prostates harbouring ISUP grade 2 and 3 tumours as opposed to ISUP grade 1 and benign lesions (p: 0.05).

No significant difference was found between PSMA positive and PSMA negative group in terms of age (median age: 70 years [IQR: 6] versus 64 years [IQR: 9]; p: 0.078), screening PSA (median PSA 5.8ng/ml [IQR: 3.6] versus 5.2ng/ml [IQR: 1.8]; p: 0.24), prostate volume (median volume 41ml [IQR: 21] versus 63ml [IQR: 22]; p: 0.2), MRI positive / negative outcome (p: 0.32) and ongoing medication for prostate benign conditions (p: 0.62).

The administered PSMA activity was not significantly different between patients with positive and negative PET scan (179MBq ± 26.8 versus 172MBq ± 27.9; p: 0.62)

Discussions

PSMA PET performed significantly better than mpPMRI only in terms of per-patient specificity (93.8% versus 61.1%) and positive predictive value (80.0% versus 46.2%); PSMA PET sensitivity and negative predictive value were inferior to mpMRI.
Of all factors considered, only PSA density and PSA F/T significantly differed between PSMA PET positive patients and PSMA PET negative patients

Conclusion

In patients on active surveillance, PSMA PET seems to hold a complementary role as a mpMRI specificity enhancer to detect CS-PCa prior to biopsy sampling. PSA density and PSA F/T seem to predict PSMA PET positive outcome

Reference

1) Ahmed AU, Bosaily AES, Brown LC et Al. Diagnostic accuracy of multi-parametric MRI and TRUS biopsy in prostate cancer (PROMIS): a paired validating confirmatory study. Lancet 2017; 389: 815–22
2) Li Y, Han D, Wu P et Al. 68Ga-PSMA-617 PET/CT with mpMRI for the detection of PCa in patients with a PSA level of 4–20 ng/ml before the initial biopsy Scientific Reports (2020) 10:10963

3. #208: 68GA-PSMA PET/CT IN PATIENTS WITH BIOCHEMICAL/CLINICAL SUSPICION OF CLINICALLY-SIGNIFICANT PROSTATE CANCER. FEATURES ASSOCIATED WITH A POSITIVE OUTCOME

M. Celli[1], R. Gunelli[2], F. Ferroni[1], M. Pulvirenti[2], P.. Caroli[1], L. Fantini[1], V. Rossetti[1], U. De Giorgi[1], D.. Barone[1], V. Di Iorio[1], G. Paganelli[1], F. Matteucci[1]

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Objective

To identify features associated with a positive outcome of PSMA PET in patients with suspected clinically-significant prostate cancer (CS-PCa)

Materials and Methods

102 patients (age range: 47-78 years; mean: 63 years) with clinical / biochemical abnormalities suspicious for CS-PCa (median PSA: 6.0ng/ml; IQR: 4.1; median PSA F/T: 14.0%; IQR: 5.7; median PSAdensity: 0.10ng/ml/g; IQR: 0.07) were included in this retrospective analysis.
Univariate tests (Welch Two sample t-test, Pearson's correlation, Fisher's Exact Test) were used to identify factors associated with PSMA PET positive outcome, including: screening PSA, PSA free-to-total ratio (PSA F/T), PSA density, prostate volume, history of prior biopsy, ongoing therapy for benign prostate conditions, ISUP grade on following biopsy, age, administered PSMA activity

Results

Out of 102 patients, 37 patients (36%) had a positive PSMA PET scan.
Patients with a history of prior negative prostate biopsies were less likely found with a positive PSMA PET than patients with no prior biopsies (23% versus 77%; $p < 0.01$).
A positive PSMA PET was more likely found in those patients with higher PSA density (mean PSA density 0.169ng/ml/g ± 0.138 versus 0.107ng/ml/g ± 0.064t; p: 0.013), older age (mean age: 64.9 years ± 6.3 versus 61.3 years ± 7.2; p: 0.018) and ISUP grade group 4 and 5 ($p < 0.001$).
PSA F/T did not significantly differed between patients with a PSMA positive and negative outcome (mean PSA F/T: 13.9% ± 3.3 versus 15.2% ± 7; p: 0.2), nor did the screening PSA (mean PSA 10.1ng/ml ± 9 versus 7.2ng/ml ± 5.5; p: 0.073) or prostate volume (mean volume 67.8ml ± 37.4 versus 68.5ml ± 26.7; p: 0.93). Ongoing medication for prostate benign conditions did not significantly differ between PSMA positive and negative outcomes (p: 0.6).
The administered PSMA activity was not significantly different between patients with positive and negative PET scan (174MBq ± 28.5 versus 166MBq ± 31.6; p: 0.189)

Discussions

PSMA PET positive outcome holds high specificity in detecting foci of clinically-significant prostate cancer. The identification of factors that may predict PSMA positivity are needed to refine its clinical indication as a specificity enhancer of multiparametric MRI.
Our preliminary results suggest that PSA density, older age, no history of prior negative biopsies and the presence of high grade prostate cancer are more frequently associated with PSMA PET positive outcome

Conclusion

PSA density, older age, no history of prior negative biopsies may improve the profiling of patients with suspected prostate cancer who may benefit from PSMA PET as a specificity enhancer of multiparametric MRI

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4. #170: BODY MASS INDEX AND PROSTATE CANCER: ARE OBESE MEN MORE FREQUENTLY AFFECTED BY HIGH-GRADE PROSTATE CANCER ON BIOPSY? A SINGLE-CENTER RETROSPECTIVE STUDY

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Objective

To investigate the relationship between body mass index (BMI) and the prostate cancer (PCa) risk at biopsy in Italian men.

Materials and Methods

We performed retrospective analyses of the clinical data of 2372 consecutive men undergoing ultrasound-guided multicore (≥10) prostate biopsy transrectally between May 2010 and December 2018. We categorized BMIs, according to Western countries' classification of obesity, as follows: <18.5 kg/m2 (underweight), 18.5–24.99 kg/m2 (normal weight), 25–30 kg/m2 (overweight), and >30 kg/m2 (obese). We compared the distribution of patients undergoing biopsy with a model population from the official survey data. We investigated patients characteristics and the relationships between characteristics using correlation analysis, ANOVA and Mann-Whitney U (MWU) tests. We estimated the influence on cancer incidence not only of BMI but also of other patient characteristics using multi-variable logistic modelling and we compared, using the models, the expected outcomes for patients who differed only in BMI.

Results

The present study enrolled 1079 men. Their distribution was significantly different from the model distribution with the probability of undergoing biopsy increasing with increasing BMI. The median age was 69.4 years. The median BMI was 26.4 kg/m2, while the median PSA level was 7.60 ng/mL. In total, the biopsies detected PCa in 320 men (29.7%) and high-grade PCa (HGPCa) in 218 men (20.2%). Upon applying the aforementioned Western countries' criteria for BMI categories, there were 4 (0.4%) underweight patients, 318 (29.5%) of normal weight, 546 (50.6%) overweight, and 211 (19.6%) obese. ANOVA/MWU tests revealed that overweight and obese men were younger than the normal-weight men while there was no statistical difference in their PSA values. 29.3% of normal-weight men, 29.5% of overweight men and 29.9% of obese men were diagnosed with PCa while 19.5% of normal-weight men, 20.1% of overweight men and 21.8% of obese men were affected by severe cancer. BMI was found to be positively correlated with PCa risk and negatively correlated with both age and PSA level. Age and PSA level were both positively correlated with PCa risk while digital rectal examination (DRE) outcome was strongly indicative of PCa discovery if the test outcome was positive. Logistics models attributed a positive coefficient to BMI when evaluated against both PCa risk and HGPCa risk. In patients having the same characteristics and who differed only in BMI, the model attributed a 60% increased risk of PCa diagnosis in an obese patient compared to a normal-weight person. This risk difference increased when other characteristics were less indicative of PCa (younger age / lower PSA) while it decreased when patient's characteristics were more indicative (older age / higher PSA, positive DRE).

Discussions

The impact of body weight gain on PCa detection is a global health problem, affecting not only Western countries but also Asian countries due to increasingly prevalent unhealthy lifestyle changes. The increasing obesity rates and higher incidence of PCa in Asia have inspired several studies to address the correlation between BMI and PCa detection among Asian populations (1-5). In this study, we evaluated the biological association between a higher body mass index and an increased risk of prostate cancer development. We further hypothesized that several factors, such as PSA levels, can play an important role in prostate cancer detection; specifically, we hypothesized that increases in BMI are inversely correlated with serum PSA levels (6, 7). The lower PSA levels in obese men could obscure the presence of prostate cancer. In an attempt to test this hypothesis, we investigated the associations among BMI, PSA levels, age at biopsy, DRE and prostate cancer risk. In particular, correlation tests showed that BMI, PSA, age and DRE were positively correlated with cancer detection. The same tests showed that BMI was negatively correlated with both age, as found in other studies (2), and PSA. It is interesting to note that, although age and PSA levels decrease with increasing BMI category, the rate of cancer detection rises slightly. This suggests that BMI, or a factor positively correlated with it, is driving cancer detection and compensating for the age and PSA level decrease. Our results suggest that BMI has a substantial incidence on PCa detection, especially in those patients where the expectation of finding prostate cancer would be lower such as those with a negative DRE finding (as shown in table) or have a lower age or PSA level. When estimating the influence of BMI on the rate of HGPCa when cancer is detected, the results show that BMI has a positive coefficient as well. The result is, however, statistically insignificant; this fact indicates that, although it can be concluded that BMI drives cancer detection in general, it cannot be concluded with certainty that HGPCa is driven more than, or at the expense of, PCa. These results suggest, however, that a larger study might confirm this, provided the trends are similar.

Conclusion

Our study shows that, in men with higher BMIs, the risk of prostate cancer is higher. The relative difference in risk is most pronounced in younger patients having a lower PSA level and a negative DRE outcome.

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5. #140: INITIAL TARGETED PROSTATE BIOPSY OF MEN WITH PI-RADS™ 4 OR 5 WHAT TO DO WHEN YOU GET NON MALIGNANT PATHOLOGICAL FINDINGS

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Objective

Prostate cancer is the most common non-cutaneous cancer in American men [1]. Since the implementation of prostate-specific antigen screening in the 1990s, urologists perform on men a non-targeted, template prostate needle biopsy in order to diagnose prostate cancer [2]. Standard template biopsy suffers from sampling error noted by the 30% risk of upgrading at the time of prostatectomy and considering that only 30% to 40% of men who undergo the procedure are diagnosed with prostate cancer [3]. Magnetic resonance imaging of the prostate (MRI) is an imaging modality that can allow for more accurate prostate biopsies. Advances in MRI technology have also led to techniques that allow fusion of MRI images on standard (US) ultrasound equipment [4]. Armed with the tools to direct the biopsy to a particular area, urologists expected better detection of more aggressive tumors and potentially a reduction in the number of negative MRI biopsies. However, in the recent article by the PRECISION group (Prostate Evaluation for Clinically Important Disease: Sampling Using Image Guidance or Not?), Randomized men obtained a prostate biopsy based on MRI results compared to a standard no MRI approach [5]. MRI only improved the clinically significant cancer detection rate by 12% (95% confidence interval, 4 to 20, e.g. 26% to 38%). While the result was statistically positive, we argue that a 38% detection rate is still quite weak. We consider other solid organ biopsies that typically achieve a detection rate greater than 90% [6]. Although MRI provides incremental benefits for improving cancer detection, in our practice we have seen a high rate of false positives that could affect the accuracy of prostate MRI.
Inflammation is known to mimic MRI prostate cancer lesions, for example chronic prostatitis or nodules after treatment with Calmette-Guérin bacillus [7,8,9]
A benign targeted prostate biopsy in the setting of a PI-RADS™ 4/5 presents a clinical dilemma. How to manage it? . We evaluated benign histological features on magnetic resonance imaging targeted prostate biopsy to determine if they predict the likelihood of missed cancer on subsequent biopsy.

Materials and Methods

Between decembre 2013 and December 2019, 89 men with benign biopsies after mpMR with PI-RADS 4/5 abnormalities was studied.
All patients underwent an enema before the procedure and antibiotics for less than 24 hours starting the morning of the procedure. We performed MRI fusion standard techniques using the Philips fusion biopsy system. A single surgeon (A.F.) performed biopsies at the same location in a surgery center . We performed standard scanning and segmentation with alignment before prostate biopsy attempt. We performed the biopsy of targeted lesions before a standard 12-core needle biopsy. A target lesion was biopsied three times (two sagittal and one transverse view), if there were more than one lesion, we took two cores of each lesion.

Results

We divided them into 5 groups for comparison to outcomes of clinical followup: inflammation (38%), stroma/glandular hyperplasia (9%), normal prostate tissue (28%), atypical small acinar proliferation/high grade prostatic intraepithelial neoplasia (9%) and cancer in adjacent systematic cores (16%).
Results: 89 patients with PI-RADS 4/5 abnormality prior to initial biopsy had no cancer on magnetic resonance imaging targeted prostate biopsy. On followup, 80 men underwent repeat magnetic resonance imaging: 13 (27%) had persistent PI-RADS 4/5 abnormalities, 21 (38%) had PI-RADS 2/3, 36 (35%) had PI-RADS 1. On repeat magnetic resonance imaging targeted prostate biopsy, cancer was found in 62.5% of men with PI-RADS 4/5 and 23% of men with PI-RADS 2/3. Histological groups on initial biopsy were not predictive of the likelihood of PI-RADS downgrade on repeat magnetic resonance imaging or cancer detection on repeat biopsy.

Discussions

The MRI fusion prostate biopsy is not without its limitations. There is a significant learning curve for the team over time, which included urologists, pathologists, radiologists and supporting staff [10]. Our data for this study do include our initial biopsy experience and may include missed targeted lesions. Guidelines continue to recommend performing the systematic biopsy along

with the targeted approach because an additional 15% of cancers are identified [11].
Our sample size is small and will need larger, prospective targeted studies on this topic to make more definitive statements regarding Pirads 4/5 no tumour but inflammation on fusion Bopsy and its appearance on multiparametric MRI (mpMRI)

Conclusion

Not detecting cancer on targeted prostate biopsy performed for PI-RADS 4-5 is very difficult to deal with, we suggest repeating the mpMRI after 6 months.
73% PI-RADS score is downgraded on repeat MRI. Persistence of PI-RADS 4/5 predicts a higher risk of cancer failure, warranting prompt re-biopsy. While histological findings such as inflammation may underlie some PI-RADS 4/5 abnormalities, on the other hand histology is a weak predictor of cancer on repeat biopsy.

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6. #139: PI-RADS™ 3-4-5 AND VALUE OF PSA DENSITY IN COMBINATION FOR THE ACCURACY OF PROSTATE CANCER PREDICTION

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Objective

Prostate cancer (PCa) is the third leading cause of cancer death among men worldwide [1]. The introduction of prostate-specific antigen (PSA) in selecting men for prostate biopsy leads to earlier detection of prostate cancer (PCa) and, perhaps, a reduction in PCa-specific mortality [2]. However, there has been a steady rise in the detection of low-grade PCa (commonly referred to as over-diagnosis) and subsequent overtreatment [3]. This problem is attributable to the poor sensitivity and specificity profile of PSA. This is particularly the case in a PSA gray zone (4–10.0 ng/ml), at which 65–70% of men have a negative biopsy result [4]. Men with indolent disease who undergo treatment may experience complications without reducing their risk of dying from PCa [5].
Nowadays, the growing availability of Multiparametric magnetic resonance imaging (mp-MRI) and increased standardisation has increased the role of prostate MRI in detecting of prostate cancer 6]. Prostate Imaging Reporting and Data System version 2 (PI-RADS v2), which was released online in the form of a 55-page document in December 2014, the overall five-point scale used in PI- RADS v2 is not designed for every cancer but for high-grade prostate cancer (HGPCa) that may require further work-up or target biopsy [7]. Therefore, the aim of this study was to develop a model combining prostate mp-MRI with traditional clinical risk factors that could be used to identify patients accurately with HGPCa (Gleason score ≥ 7) on reduction of unnecessary prostate biopsies in PSA gray zone.

Materials and Methods

A total of 104 consecutive men with suspicion of prostate cancer underwent multiparametric magnetic resonance imaging first, followed by transrectal systematic and magnetic resonance imaging-transrectal ultrasound fusion guided biopsy. We performed logistic regression analyses to test different clinical factors as predictors of significant prostate cancer and build nomograms. To simplify these nomograms for clinical use patients were stratified into 3 prostate specific antigen density groups, including group 1-less than 0.07, group 2-0.07 to 0.15 and group 3-greater than 0.15 ng/ml/ml. We calculated after stratification the negative predictive value of a PI-RADS (Prostate Imaging Reporting and Data System) Pirads score of 3. Significant prostate cancer was defined as a Gleason score of 3 + 4 or greater. High grade prostate cancer was defined as a Gleason score of 4 + 3 or greater.

Results

Overall 45 men were diagnosed with significant prostate cancer, including 18 with a Gleason score of 4 + 3 or greater. On ROC curve analyses the predictive power of the developed nomogram for significant prostate cancer showed a higher AUC than that of PI-RADS alone (0.79 vs 0.75, p <0.001). The negative predictive value of harboring significant prostate cancer increased when prostate specific antigen density was 0.15 ng/ml/ml or less in men with unsuspicious magnetic resonance imaging from 79% up to 89% . In the repeat biopsy setting the negative predictive value of significant prostate cancer increased from 83% to 93%. The negative predictive value to harbor high grade prostate cancer increased from 92% up to 98% in the entire cohort.

Discussions

The justification for PSAD evaluation was elaborated in some previous study, where it was stated that such marker is better predictor for PCa then PSA level particularly with 4–10 ng/ml [8, 9]. In contrast, our adjusted-PSAD has higher AUC than previous studies. Traditionally, PSA "density," whereby the PSA value is divided by the prostate volume, estimated from either DRE or TRUS. MRI provides soft-tissue contrast resolution superior to that of transrectal ultrasound so that it can be used for more accurate estimation of prostate volume [10, 11]. It is not surprising that the adjusted-PSAD increased the predictive ability of HGPCa and also became a significant predictor for HGPCa.

Conclusion

Using prostate specific antigen density combined with multiparametric magnetic resonance imaging improved the negative predictive value of PI-RADS scoring [12]. The addition of PSAD improves the predictive performance of PI-RADS in men without known prostate cancer. A PSAD threshold of 0.15 can help to minimize the number of missed clinically significant prostate cancer cases in men with a PI-RADS score of 3 or lower who decide to defer biopsy. By increasing the probability of ruling out significant prostate cancer approximately 20% of unnecessary biopsies could be avoided safely.

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7. #209: 18F-PSMA PET/CT IN THE ASSESSMENT OF EARLY BIOCHEMICAL RECURRENCE IN PROSTATE CANCER PATIENTS RADICALLY TREATED

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Objective

The aim of this prospective study was to investigate the diagnostic accuracy of 18F-PSMA PET/CT compared to image prostate cancer patients (pts) with biochemical relapse and negative/equivocal conventional imaging

Materials and Methods

214 patients with biochemical recurrent prostate cancer (Pca) have been enrolled . Our cohort included PCa pts with a Gleason score ranging from 6 to 10. Patients were initially treated with either radical prostatectomy (RP – 192 patients), or external beam radiotherapy (RT – 98 patients), or brachytherapy (BT – 5 patient) A serum PSA value was between 0.2 and 1.0 ng/ml and negative / equivocal conventional imaging (CT-MRI) was present at enrollment. Patients were off hormonal and radiation therapy for at least 6 months. 18F-PSMA 1007 was prepared according to national regulations, good radiopharmaceutical practice (GRP)

as outlined in EANM guidelines, using an All-in-One Modular Lab (Trasis) For each patient the PET/CT scan (Biograph mCT Flow® , Siemens Healthineers, Germany) was performed from skull vertex to mid-thigh, 60 minutes after intravenous administration of body-weighted activity of 18F-PSMA (range 100-200 MBq 18F-PSMA). Acquisition was made on Flow mode (0,7 mm/sec) in 3D mode

Results

18F-PSMA PET/CT was positive in 128 patients (60%), equivocal in 10 patients (5%) and negative in 76 patients (35%).
In particular, local uptake (prostate bed or prostate gland) was observed in 67/128 patients (31% of pts); 8 of these patients also showed nodal disease and in 5 more patients unaspected bone disease was revealed. Loco-regional nodal uptake was described in 50/128 patients (29). In 7/128 patients (5%) retro-peritoneal nodal and bone uptake co-existed; 28/128 patients (21%) showed bone uptake only. In patients with PSA ranging 0.2 – 0.5 ng/mL, 18F-PSMA PET/TC resulted positive in 58/128 (positivity rate=45%).
For PSA levels between 0.5-1 ng/ml 18F-PSMA PET/TC showed pathological uptake in 70/128 patients (positivity rate=55%)

Conclusion

Our experience confirms that 18F-PSMA PET/TC is a highly sensitive restaging tool in biochemically-relapsing prostate cancer with negative or equivocal conventional imaging including 18F-FCH PET/CT .
In these patients 18F-PSMA PET/TC has proven particularly effective in detecting pelvic and/or extra-pelvic nodal disease over locally-confined prostate recurrence and has shown interesting outcomes also in Pts with PSA < 0.5 ng/ml where 18F-FCH PET/CT is not indicated.

8. #73: DOES PREOPERATIVE MAGNETIC RESONANCE IMAGING (MRI) IMPACT THE RATE OF POSITIVE SURGICAL MARGINS (PSMS) AFTER ROBOTIC ASSISTED RADICAL PROSTATECTOMY (RARP)?

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Objective

The purpose of our study is to evaluate whether preoperative MRI can have an impact on the rate of PSMs.

Materials and Methods

This single-institution retrospective study enrolled 387 patients undergoing RARP between 01/2016 and 12/2020. Of these, 100 had performed a mp-MRI for the software-guided fusion-biopsy. The evaluation score system was PIRADS score v2. The samples taken during the fusion biopsy were systematic + target, obtaining a first more accurate local staging (cT2a VS cT2b VS cT2c) and, above all, if the tumor extends through the prostatic capsule (cT3). TNM staging was performed with CT abdomen and bone scan in patients with PSA≥20 or GS≥8.
The presence of PSMs in the two groups was detected and compared, searching for any statistically
significant differences using the t-Student T test. PSMs were compared for the surgeon who performed RARP, local staging (T), and tumor grading (GS). We considered positive margins when the presence of tumor cells on the margin was ≥ 1mm and non-focal. Finally we looked for a possible correlation between the areas of the PSMs and the use of mp-MRI.

Results

Total number of RARP is 387, of which 100 with MRI before surgery. The median values for age and performance status (Charlson score) are 67 and 4 respectively. For 217 patients RARP was perfomed with bilateral nerve sparing technique, for 35 patients with monolateral technique, where the tumor had predominantly developed on one side, and for 135 was not performed the nerve sparing technique. For 99 bilateral iliac-obturator lymphadenectomy was performed. The median value of stay is 3 days (range 3-42; σ: 2.58). The median value for PSA is 7 ng/mL (range 1.8-70; σ: 5.11). Predominant histology was acinar adenocarcinoma (91,2%). among the subtypes of prostate adenocarcinoma duct adenocarcinomas, cribriform and glomeruloid were 2, 29 and 1 respectively. The percentage of GS was 32%; 38%; 20%; 4%; 1% for 3+3; 3+4; 4+3; 4+4; 4+5 respectively. Local staging showed 37 T2a (9%); 13 T2b (3%); 244 T2c (63%); 47 T3a (12%); 38 T3b (10%).
The most affected areas of PSMs are postero-lateral (42%) and apex (45%). A small fraction of PSMs were on anterior-lateral (10%) and middle-lateral (2%). The total rate of positive margins was 50.3%. In patients with prior mp-MRI the rate of PSMs was 46%. Despite a small difference in the percentage of PSMs, no statistically significant differences
were found (p= 0.42).
On the other hand, by analyzing the procedures in which the nerve-sparing technique was performed, a higher, but in any case not significant, rate of PSMs was found (55%). The grading did not impact the PSMs rate. Finally, no statistically significant difference was found among the surgeons who performed the RARP.

Discussions

The impact of PSMs is a topic that is still widely studied in the literature, especially in organ- confined tumors, and represents an

independent predictor for biochemical recurrence (BCR). Moreover, GS ≥4 at the margin and ≥3 mm PSM length were associated with worse BCR-free survival. Closer surveillance of patients with organ-confined prostate cancer (PC) at RARP and PSM can help to identify those who qualify for early salvage radiotherapy [12]. MRI is currently the most accurate imaging modality that provides relevant information on PC localization and stage [13]. However, in spite of a growing body of evidence, influence of MRI on decision-making process, with adjustment of individual template of dissection during subsequent RARP is complex and still poorly understood. EAU-ESTRO-ESUR-SIOG guidelines suggest using prostate MRI for local staging in high risk group and intermediate risk group with predominant GS 4 [14].

There is currently no impact of preoperative MRI on the rate of PSMs. A meta-analysis by Mieszko Kozikowski et al has shown that in those who had preoperative MRI rate of PSMs is no different irrespectively of the direction of surgical technique adaptation [15]. In matched control study, despite the difference in crude numbers, PSMs rates in pelvic MRI and non-MRI groups were similar (13.7% vs 19.3%) [16]. This comparison is similar to that of our study, despite our PSM rate is higher. A further analysis needed is the area involved in the PSMs, as attributable to the surgical technique performed. A study by Atsushi Koizumi et al compared incidence and location of positive surgical margin among open, laparoscopic and RARP. Multiple surgeons were involved in the three approaches, and a single pathologist conducted the histopathological diagnoses. Results showed RARP may potentially achieve the lowest positive surgical margin rate among three surgical approaches. The bladder neck was the most common location of positive surgical margin in RARP and apex in open radical prostatectomy and laparoscopic radical prostatectomy [17]. In our study, as cited in the results, the most affected areas of PSMs are posterolateral (42%) and apex (45%). A possible explanation, especially for posterolateral PSMs, is that the interfascial or intrafascial nerve-sparing approach significantly increases the risk of PSMs, especially for locally advanced disease (T3).

Conclusion

Currently, preoperative MRI does not allow a significative reduction in the rate of PSMs. However, it remains useful for surgical planning and with possible future developments on local PC staging. The nerve-sparing technique may ensure a faster resumption of sexual function but remains a major risk factor for PSMs and should be limited for tumors with primary GS ≥ 4.

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19 maggio 2022

14:00 - 15:00

sala C

Comunicazioni 3-
I Calcoli Oggi

Moderatori: Letterio D'Arrigo, Ferdinando De Marco

Focus on: *i danni da ureteroscopia*
Ferdinando De Marco

1. #119: ENDOUROLOGICAL MANAGEMENT OF STONES IN EMERGENCY CENTER DURING THE COVID-19 PANDEMIC

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Objective

The COVID-19 pandemic has negatively affected the management of urological procedures worldwide, as during the pandemic all health resources were aimed at assisting COVID-19 patients to contain the infection. Due to the rescheduling of non-urgent procedures, endourology in the management of kidney and ureteral stones suffered a setback. The aim of the study is to evaluate the amount and features of endourological treatments for renal and ureteral stones performed during a pandemic year (March 2020 – February 2021) compared with the previous year in a high-flow Emergency Hospital (Cannizzaro Hospital).

Materials and Methods

Retrospective analysis and comparison of 495 patients undergoing endourological treatment for ureteral and renal stones [semi-rigid ureteroscopy (URS), retrograde intra-renal surgery (RIRS) and percutaneous nephrolitotomy (PCNL)], divided into two groups based on the treatment period: Group-1 consisted of 298 patients (60.2%) treated from March 2019 to February 2020 and Group-2 consisted of 197 patients (39.8%) treated from March 2020 to February 2021 during the COVID-19 pandemic. Each group was subsequently divided into comparison subgroups based on the treatment performed (URS, RIRS or PCNL). The pre-operative routine examinations were performed in both groups, whereas a nose-pharyngeal swab at the entrance was performed only in Group-2 patients. To assess the normal distribution of the variables the Kolmogorov-Smirnov test and histogram analysis were applied. Descriptive analyses were performed by using Chi-square test and Student's t test for categorical and numerical variables respectively. Significance was defined at p-value ≤ 0.05.

Results

Concerning patients undergoing URS, PCNL and RIRS, there was no statistically significance difference in terms of hospital stay between the two groups. Similarly, there was no statistically significance difference in terms of complications between patients undergoing RIRS. Instead, statistically significance differences were evaluated, between the two groups in patients undergoing

URS, in terms of pre-operative sepsis (17.6% vs 33.3%, p <0.05), pre-operative hydronephrosis (61.8% vs 87.6%, p <0.001) and pre-operative acute renal failure (2.4% vs 10.5%, p <0.001). The rate of the post-operative complications was higher in Group-2 for patients treated with URS in the COVID era (16% vs 1.8% p-value <0.001), urosepsis (11.4% vs 2.4%, p <0.001) (Clavien-Dindo Grade II) and ureteral stenosis (3.8% vs 0% p <0.05) (Clavien-Dindo Grade III). Similarly the rate of pre-operative sepsis is higher in Group-2 than Group-1 in patients submitted to RIRS (33.3% vs 9.2%, p <0.001), but there were no statistically significance differences in terms of pre-operative hydronephrosis and acute renal failure. Statistically significance differences were evaluated in patients undergoing PCNL, between the two groups, in terms of stone size (2.2 ± 1.5 vs 4.2 ± 1.5, p <0.001), shape of stones (branched 14% vs 34%, p <0.05; not-branched 80.7% vs 54%, p <0.05) and pre-operative clinical stage (sepsis 1.7% vs 12%, p <0.05; hydronephrosis 56.1% vs 94%, p <0.001). The rate of post-operative complications in patients treated with PCNL was statistically significance in terms of sepsis (3.5% vs 18%, p <0.05).

Discussions

Pandemic Coronavirus 2019 has greatly affected the management of endourological treatments, most of which were delayed for two main reasons: surgeons worked only for emergencies and oncological surgery on one hand, and on the other hand people prefer to postpone elective surgery due to the fear of the virus. In Italy, there has also been a decrease in treatment of urgent or emerging urological conditions, leading to serious, but preventable, complications, such as long-time ureteral stents encrustation and chronic inflammation, ureteral stenosis, preoperative sepsis and preoperative hydronephrosis. Second-look PCNL had a higher incidence in the Covid -19 era, performed during the admission to ensure more complete clearance of complex staghorn stones. Patients' management should therefore provide an immediate decompression in patients with obstructive and infected stones and a monitoring telemedicine system in those with long-standing reno-ureteral stents.

Conclusion

The data obtained showed the presence of a higher rate of preoperative sepsis, hydronephrosis and acute renal failure in patients with kidney and urinary stones, causing a significant increase in presentations to Emergency Department during the Covid-19 era. This made the treatment of this condition much more complex than before the Coronavirus pandemic. However, these results must be interpreted in the light of the fact that our Department (Cannizzaro Hospital) was a reference center for emergency access during the Covid period.

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2. #89: CASE REPORT: ANTEGRADE LEFT URETEROLITHOTRIPSY IN A PATIENT WITH PREVIOUS PSOAS-HITCH URETERAL REIMPLANTATION

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Objective

Definitive surgical management of patients with distal ureteral pathologies may involve ureteroneocystostomy (UNC), which is the reimplantation of the ureter into the bladder [1]. Because a tension-free anastomosis between the ureter and the bladder is critical for a successful UNC, patients with ureteral strictures that are extensive or involve more proximal segments of the distal ureter are typically managed with a concomitant psoas hitch or Boari flap or both during UNC [2].

Following ureteral reimplantation, achieving ureteric access for retrograde diagnostic and therapeutic maneuvers (such as for example in cases of urolithiasis, urothelial cancer or ureteral stenosis) may be challenging or even impossible. In fact, the location and shape of the ureteral neo-orifice, as well as the characteristics of the intravesical tunnel (in antireflux techniques) may be at the basis of anatomic alterations of the ureterovesical neojunction that hinder retrograde manoeuvres [3]. In these cases, antegrade ureteroscopy may represent an intermediate step before proceeding to more invasive, transabdominal approaches [4].

The purpose of our study is to describe an approach of AULT for the treatment of an impacted stone in a left psoas-hitch reimplanted ureter not amenable to retrograde treatment.

A woman with severe left hydronephrosis supported by a subcentimetric proximal ureteral stone in a psoas-hitch reimplanted ureter referred to our unit. Retrograde ureteroscopy was unsuccessful due to impossibility in incannulating the ureteral neo-orifice. Following the placement of a percutaneous nephrostomy, percutaneous anterograde ureterolithotripsy (AULT) through ureteral sheath was successfully performed with complete treatment of the stone.

Discussions

When shock wave lithotripsy (SWL) is not indicated or has failed, and when the upper urinary tract is not amenable to retrograde ureteroscopy (URS) such as in cases of urinary derivations, or ureteral reimplantation with or without psoal hitch/Boari flap, the percutaneous antegrade removal of ureteral stones may represent a valid alternative before considering surgical approaches to the ureter characterised by higher morbidity, such as the transabdominal ones (i.e ureterolithotomy).

Antegrade access is relatively easy and quick to obtain when there is dilation of the upper urinary tract. Following the placement of the percutaneous nephrostomy, a guidewire is inserted; in cases where the guidewire bends or additional force is required on its tip, a ureteral open-end catheter can be used similarly to standard URS. If the guidewire passes into the bladder through the target stones, then it could be even used to perform a retrograde ureterolithotripsy. However, this was not the case in our patient.

AULT in experienced hands is quick and safe, however is not devoid of difficulties. One of these is the creation of the percutaneous tract; in our case, a balloon dilation was used that allowed us to dilate the fascia. Another difficulty is the usually steep angle between renal calyxes (particularly the inferior one) and ureter. These two issues, combined to the necessity of inserting a laser fiber into the working channel with slight deflection of the ureteroscope, confer a considerable risk of damaging the instrument. Thus, single-use ureteroscopes may be preferred in these approaches.

The antegrade approach to the stone confers no risk of regression of it. The pressurized irrigator aids in achieving better visualization and helps the leaching of fragments. Several authors underline the safety and effectiveness of the AULT for the management of impacted upper ureteral stones, with success rates that frequently overcome the ones of the standard retrograde approach [4].

Conclusion

AURT may represent a viable alternative in the management of ureteral stones, when the upper urinary tract is not amenable to retrograde ureteroscopy, such as in cases of distal ureteral obstruction or reimplanted ureters. In experienced hands the procedure is straight forward and may avoid the adoption of transabdominal approaches (ureterolithotomy).

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3. #122: STONE FREE RATE AND CLINICAL COMPLICATIONS IN PATIENTS SUBMITTED TO RETROGRADE INTRARENAL SURGERY (RIRS): OUR EXPERIENCE IN 571 CONSECUTIVE CASES

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Objective

The purpose of this study is to report the stone free rate (SFR) and clinical complications in patients submitted to retrograde intrarenal surgery (RIRS).

Materials and Methods

A total of 571 procedures with upper urinary stones treated using flexible ureteroscopy and holmium laser lithotripsy from January 2014 to February 2020 have been retrospectively analysed. Physical examination, routine urine culture, and non-contrast computed tomography (N-CCT) were evaluated before to surgery. RIRS was performed on standard antibiotic prophylaxis (according to local guidelines) or on targeted antibiotic therapy in case of preoperative positive urine culture. In this case therapy was started 5 days before surgery and continued for 3 more days. Overall SFR was evaluated after 3 months following the procedure by means of a N-CCT. Patients who were not considered stone free at the end of the procedure were rescheduled for second look. Success was considered as stone-free status or ≤0,4 cm fragments.

Results

At 3 months CT scan, overall SFR was 92,3% in group 1 (stone size: <1cm), 88.3% in group 2 (stone size: 1-2cm), 56.7 % in group 3 (stone size: 2-3 cm) and 69.6% in group 4 (multiple stones). Intra-operative complications were reported in 4 patients: 2 intra-operative bleeding and 2 ureteral wall injuries secondary to UAS placement. Post-operative complications, according to the Clavien-Dindo (CD) classification system, were recorded in 32 (5.6%) procedures: 1 patient had a cerebrospinal fluid leak after spinal anaesthesia (CD Grade I), 11 patients had nausea and vomiting, 15 patients developed urosepsis (CD Grade II-IIIa). The major complications recorder were: one case of subcapsular hematoma (SRH) associated with pulmonary embolism 2 days after the procedure (CD Grade IIIa) treated conservatively, and one case of haemorrhagic shock 2 hour after RIRS with multiple renal bleedings requiring urgent nephrectomy (CD Grade IVa).

Discussions

In 2013 EAU guidelines RIRS has been reported as an effective and definitive therapeutic option for kidney stones up to 2 cm with higher stone free rate (SFR), minimal invasiveness and low rate of complications. In our study SFR was 86% with a mean operative time of 72 minutes. Even if this treatment is considered a safety procedure, a wide spectrum of intra and mostly post-operative severe events must be considered. RIRS hides potentially dramatic and fatal complications, such as sepsis, cardiac event and hemorrhagic events. The urinary tract infection is the most common event required specific antibiotic therapy. For these reasons it is important a careful post-operative patient monitoring. Ureteral injury is the most common intra-operative complication. Bleeding and renal rupture are less frequent but could lead to serious consequences. The cause of sub-capsular renal hematoma might be due to increase intrarenal pressure by irrigation, laser and guide wires. The routine intra-operative use of ureteral access sheaths (UAS) is recommended because UAS facilitate recurrent entries into and exits from renal collecting system. Moreover, sudden the increase in infrarenal pressure was showed to cause twisting, stretching and/or obstruction of the main intrarenal vessels.

Conclusion

RIRS is an effective and safe procedure in the treatment of renal stones with a high SFR significantly correlated with the stone size; at the same time, RIRS could be characterized by severe clinical complications that require rapid diagnosis and prompt treatment.

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4. #131: MINIATURIZED ACCESSES AND ENDOSCOPIC COMBINED INTRA-RENAL SURGERY (ECIRS): WHICH ADVANTAGES?

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[3] Ospedale Cannizzaro (Catania)

Objective

Endoscopic combined intra-renal surgery (ECIRS) combines a simultaneous antero-retrograde approach aiming to treat stones located in every part of the urinary tract. Miniaturizations of renal access were introduce to reduce the morbidity of the procedure without affecting the stone free rate (SFR) and widening the indications for percutaneous procedures. Aim of our study was to evaluate our experience, from January 2018 to July 2021, of miniaturized ECIRS in the Galdakao-Modified Supine Valdivia (GMSV) position.

Materials and Methods

Retrospective evaluation on 90 patients who underwent miniaturized ECIRS in GMSV position from January 2018 to July 2021. In this period we used 3 different percutaneous accesses: 11/12 Fr (ultramini ECIRS-S), 15/16 Fr (mini ECIRS-M) and 20/22 Fr (mini ECIRS-L). In all cases the access was performed under radiological and ultrasonographic guidance. Patients were divided into three groups according to access diameter: Group-1 subjected to ultramini ECIRS-S, Group-2 to mini ECIRS-M and Group-3 to mini ECIRS-L. Lithotripsy was performed with Holmium YAG laser in ultramini ECIRS-S and mini ECIRS-M (200 µ fiber was used ultramini ECIRS-S, 550 µ fiber for mini ECIRS-M) and Lithoclast EMS in mini ECIRS-L. Group-1: performed for lower pole stones <15 mm with a caliceal anatomy unfavourable to a pure retrograde access. Group-2: performed for kidney stone <20 mm. In the two groups the puncture was performed with ultrasound and radiological guidance followed by a "single-step dilation". A 7,5 Fr mini nephroscope for MIP S/XS (Karl Storz, Berlin GmbH, Germany) and a 12 Fr mini nephroscope for MIP M (Karl Storz, Berlin GmbH, Germany) was used for stone fragmentation and removal respectively in Group 1 and Group 2. Group-3: performed for kidney stone between 20 and 30 mm, the puncture of the renal cavities was performed with combined ultrasound- and fluoroscopy guided control, the nephrostomy tract was dilated using Teflon Amplatz dilators up to 20/22 Fr and was used 18 Fr nephroscope (Karl Storz, Berlin GmbH, Germany). All patients underwent a preoperative contrast CT scan. Patients were followed with a non contrast CT scan 1 month after the procedure. Clinical outcomes such as stone-free rate, complications (according to Clavien-Dindo classification) and hospital stay were evaluated and described. Stone free was defined in case of residual fragments < 4 mm and no need for further procedure.

Results

All intra and postoperative characteristics and outcomes are reported in tab. 1. All patients had renal stones, 9 patients (10%) had obstructive ureteral stones with hydronephrosis and in 3 patients (3.3%) was found intraoperatively ureteral stenosis. Mean operative time was 118 min (89-147) in Group-1, 170 min (86-138) in Group-2 and 95 min (69-121) in Group-3. Mean post-operative stay was 4.3 days (2-6) in Group-1, 4.7 days (3-7) in Group-2 and 6.67 days (3-28) in Group-3. At 1 month follow-up, overall stone-free rate was 86.6 %: 100 % (9/9) in Group-1, 83.7 % (31/37) in Group-2 and 88.4 % (38/44) in Group-3. Retreatment was performed in twenty-five patients: ECIRS second-look was performed in five patients (one patient in Group-2 e four patients in Group-3) and flexible ureteroscopy was performed in twenty

patients (two patients in Group-1, seven patients in Group-2 and eleven patients in Group-3). Overall, 7 patients (7.7 %), experienced post-operative complications (post-operative fever in all cases, Clavien-Dindo Grade II): 3 patients (3.3 %), 2 in Group-1 (22.2 %) and 1 in Group-2 (2.7 %) experienced urosepsis (Clavien-Dindo Grade II). 1 patient (1.1 %) in Group-3 experienced severe urosepsis with shock and multi-organ failure requiring hospitalization in intensive care (Clavien-Dindo Grade IV), while one (1.1 %) in Group- needed a DJ stent repositioning (Clavien-Dindo Grade IIIa). In 2 patients (2.2 %) of Group-3 we observed bleeding complications and we resorted to selective angiographic embolization and blood transfusion (Clavien-Dindo Grade IIIa).

Discussions

ECIRS is a new technique developed to minimize the burden of PCNL in large renal stones. The advantages of the GMSV position and of combined antero-retrograde approach have been well documented and include greater versatility of stone manipulation along the whole urinary tract with both rigid and flexible instruments. In our series, in the three groups, 11 patients (12.2%) presented ureteral obstruction (9 ureteral stones and 3 stenosis) resolved at the same time by exploiting the advantages of the simultaneous antero-retrograde approach. Miniaturization in PCNL showed improvement of morbidity including blood loss, postoperative pain, operative time, and length of hospital stay without the decrease of SFR. In our series we analyzed three access diameter, we have noticed, as already described by many authors, that with accesses of greater caliber, operating times are reduced but hospital stay and complications increase. The stone free rate in all groups is comparable but for different stone diameters. ECIRS could be indicated in patients with medium and severe complex nephrolithiasis with significant high SFR in the single session.

Conclusion

Miniaturized ECIRS, according to our experience, allows to achieve good stone free rate with a very low morbidity compared to conventional percutaneous accesses. GMSV facilitates treatment of ureteral stones and stenosis by retrograde access with known benefits of supine position. So simultaneous ureteral and renal stones can benefit of this techniques, as well as stones of the lower pole with caliceal anatomy unfavourable to a pure retrograde access.

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5. #144: THE SAFETY AND EFFICACY OF THE J FIL STENT IN THE POST OPERATIVE ENDOSCOPIC PROCEDURES

F. De Marco[1], M. Polese[2], P. Aloisi[2]

[1,2] Villa Betania (Roma)

Objective

The use of ureteral stenting is very common after the endourological procedures, The drainage of the upper urinary tract is usually satisfying using the classical double J design but the compliance for the patients regarding the correlated symptoms is very low. The J Fil implant after different endourological procedures was evaluated in terms of drainage efficacy and compliance for the patients.

Materials and Methods

The JFil is a new designe polyuretane stent with a proximal ring of 2 cm in diameter, a shaft of 16 cm with a 3 cm distal part cutted with a flute beak shape and two 5/0 prolene string of 22 cm. Since March 2020 and October 2021, 380 patients underwent to endourological procedures: 187 ureterolithotripsy, 190 retrograde intrarenaly
surgery and 7 other proceures. Regarding the different disorders we treated 186 renal stones, 187 ureteral stones (102 upper, 17 medial and 68 lower) and 7 patients with other ureteral disorders. The aim of the study was to evaluated the efficacy of the JFil as drainage of the upper urinary tract after endourological procedures, to evaluate its compliance for the patients and efficacy as ureteral dilatator in the portion of the uretere where the prolene strings were positioned. All the patients were followed up by US renal scan and KUB at 30 days postoperativelly and USSQ was administered also

Results

303 patients with follow-up at 30 days po underwent to Jfil removal. Hydronephrosys was present on 20 patients (6.6%)
No dislocation (X ray control) of the shaft and 4 dislocation of the strings into the ureter (endoscopyic view) were reported 4/380 (1.05 %). We also reported 1 patient with self-expulsion, 1 patient needed to early Jfil removal due to fever. 16 out of 370 patients complained severe back pain (4.3 %) and 1 patient delevoleped a calcification of the Strings plus proximal Ring. USSQ results were in evaluation. Of the group of patients with lower ureteral stones (16 medial and 68 lower ureter respectively) after the removal of the JFil (11/16 and 50/68) we reported the absence of hydroneprhosys on 10/11 (90%) and 48/50 (96%)

Discussions

The experience on the use of the Jfil had to clarify if the post operative use of it was able to guarantee an appropriate drainage of the urinary tract , a reduction of the double J related-symptoms and if was able to produce a passive dilatation of the ureter by the 5/0 prolene strings.

Conclusion

The results obtained indicated that the JFil is able to solve a dilatation of the upper urinary tract: to prepare the way to endourological procedure; to drain the upper urinary tract after an endourological procedure (in lower ureteral impacted stone also) and is well tolerated by the patients and it easy to remove. Comparable studies versus classical double J stents are going on but this experience wanted just to understand if this new design could be useful for the patients and for the urologists.

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6. #145: THE "GREY ZONE" OF 10-20 MM KIDNEY STONES: WHAT ABOUT THE EXTRACORPOREAL SHOCK WAVE LITHOTRIPSY RESULTS?

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[2] Università La Sapienza, Dipartimento di Urologia (Roma)

Objective

Based on EAU guidelines the indication for the active removal of 10-20 mm is based on both endourological approach and ESWL. Very often the choice of the treatment depends on the urologist or on the patients preferences. In some case the indications depends in the availability of instruments but, still the stone free rates and the complication rates of ESWL and endourological approaches, are confusing. Worldwide the number of endourological procedures are increasing, in the treatment of renal stones, reporting high stone free rates and the question if the ESWL is competitive is still on debate.

Materials and Methods

We report our experience in a single Stone Center on 2856 out of 6477 patients with 10 – 20 mm urinary tract stones, using a lithotripter equipped with the EMSE type 220F-XXP.
From October 2001 till May 2019, 6477 patients were treated using the Dornier Lithotripter DLS II. We evaluated retrospectively the stone free rates and the complication rates on the group of patients (2856) with a 10-20 mm kidney stone. The inclusion cri-

teria were patients with kidney stones for which ESWL were appropriate. All stone localization and chemical composition were included (whatever Hounsfield Unit).

Results

The overall "stone free rate" was equal to 85.0% (2430 out of 2856 patients)
after a single treatment. Based on the stone localizations, the 3 month stone free rates, were: in the pelvic stones group 1680 out of 1890 (88.8%) , for stones of the upper calyx 93 out of 112 patients (83.0%) , for medium calyx stones 58 out of 105 (55.2%), and for lower calyx stones 599 put of 749 (79.9%).
38 (1.4%) out of 2856 patients needed a post ESWL endourological approach to remove fragments blocked in the ureter and 3 patients underwent to double J insertion to treat a clinically evident subacapsular hematoma.

Discussions

The results showed a large stone free rates and lower complications rates in the 10-20 mm kidney stones. The evaluation of the results based on the localization indicates good results for lower calyx stones. Therefore, better results could be obtained by the evaluation of HU of the stones and following the best practice rules

Conclusion

In such way, probably , the next guidelines must be redefine the treatment of choice of the "grey zone" of 10-20 mm kidney stones, maintain the leader role of ESWL in the treatment of urinary tract stones.

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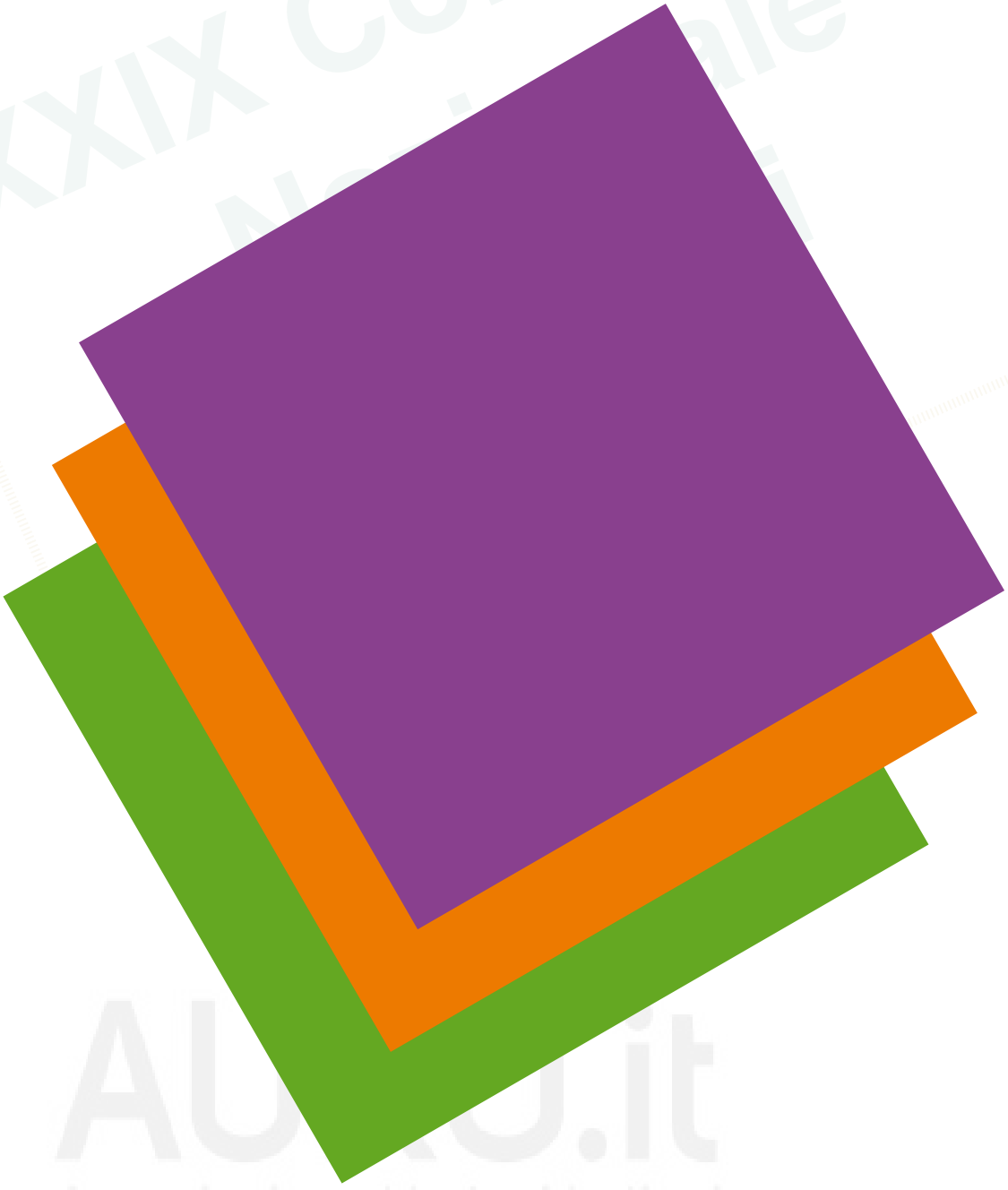


20 maggio 2022

15:30 - 16:30

sala A

Video 3-
"Fallo" Bene

Moderatori: Marco Bitelli, Pietro Augusto Mastrangelo

1. #27: LAPAROSCOPIC MANAGEMENT OF COMPLEX URETEROPELVIC JUNCTION OBSTRUCTION

M. Fabiano[1], F. Chiancone[1], M. Fedelini[1], F. Persico[1], R. Giannella[1], C. Meccariello[1], P. Fedelini[1]

[1] *AORN A. Cardarelli, U.O.C. Urologia (Napoli)*

This video shows the management of some complex cases of ureteropelvic junction obstruction performed at the "Urology Department" of A.Cardarelli Hospital (Naples). We present a minimally invasive approach with laparoscopic access. Open access technique is used for primary trocar. All procedures were performed through transperitoneal approach using three operative trocars. We used these laparoscopic instruments: 1 bipolar grasp, 1 scissor, 2 needle drivers,1 grasp and 1 suction device. In some cases a fourth trocar was placed for a grasp to elevate the liver. The patients were placed in lateral position. We present a pyeloplasty in ptosic kidney, in ectopic kidney, the ureteropelvic junction reconstruction in a horseshoe kidney and ureterocalicostomy. Moreover we show the pyeloplasty in a double incomplete collecting system and a case of repyeloplasty after failed laparoscopic repair of UPJ obstruction by crossing vessels. A double J stent was placed intraoperative with a laparoscopic-endoscopic procedure in all cases. The remodelling of the junction was performed using 5/0 Vicryl suture. No patients experienced complications and no failure of the procedures were seen at post-operative follow-up. Mini-invasive treatment of complex ureteropelvic junction obstruction is a feasible and safe procedure if performed in highly experienced laparoscopic centres.

2. #200: PERCUTANEOUS AND ENDOSCOPIC COMBINED TREATMENT OF BLADDER AND RENAL LITHIASIS IN MITROFANOFF CONDUIT

R. Inzillo[1], E. Kwe[1], E. Simonetti[1], R. Milandri[1], M. Grande[1], G.L. Pozzoli[1], M. Larosa[1], F. Facchini[1], S. Ferretti[2], A. Frattini[1]

[1] *Ospedale Civile (Guastalla)*

[2] *Ospedale Maggiore (Parma)*

In questo video si mostra una tecnica di trattamento percutaneo di una voluminosa formazione litiasica in un serbatoio continente eseguito con tecnica di Mitrofanoff. La tecnica utilizzata è quella di endolitotrissia percutanea con un controllo in "endo-vision" della puntura e della dilatazione del tramite tra serbatoio e cute. Questa tecnica permette di evitare il passaggio di strumenti

rigidi e di grosso calibro all'interno del condotto di Mitrofanoff, manovra che comprometterebbe potenzialmente il meccanismo di continenza dello stesso.
Si è inoltre proceduto al trattamento endoscopico di una litiasi caliceale inferiore renale sinistra.

3. #26: LAPAROSCOPIC-ASSISTED CORRECTION OF A RETROCAVAL URETER

M. Fabiano[1], F. Chiancone[1], F. Persico[1], A. Oliva[1], M. Fedelini[1], C. Meccariello[1], P. Fedelini[1]
[1] *AORN A. Cardarelli, U.O.C. Urologia (Napoli)*

Despite the widespread use of the laparoscopy, the retrocaval ureter is usually corrected surgically through an open retroperitoneal procedure. This video describes the main steps of laparoscopic-assisted correction of a retrocaval ureter.A 19-year-old man was referred to our attention for episodic flank pain. Preoperative computed tomography (CT) revealed severe hydronephrosis due to retrocaval ureter. Here are described the main step of the procedure. With the patient in left lateral position three ports are placed transperitoneally. Open access technique is used for primary trocar. The hepatic flexure and right colon are mobilized medially to provide exposure to the right retroperitoneal structures. The right renal pelvis, inferior vena cava, right gonadal vein, right ureter and duodenum are all identified. The renal pelvis and ureter were mobilized. The renal pelvis is transected and the ureteropelvic junction along with the retrocaval segment are transposed anterior to the inferior vena cava. The uretero-pyelostomy is performed using two continuous absorbable suture on a double-J stent. Finally, a drain tube is inserted. The operative time was 70 minutes. No intraoperative and postoperative complications occurred. The patient was discharged three days after surgery. Post-operative CT at three months confirmed normal drainage of contrast.

4. #92: APPROCCIO PENO-SCROTALE PER LA CORREZIONE DELLA CURVATURA PENIENA CONGENITA VENTRALE. APPROCCIO MININVASIVO SENZA CIRCONCISIONE E DEGLOVING

A. Ruffo[1], F. Riccardo[1], F. Esposito[1], F. Trama[2], G. Romeo[3], F. Iacono[4], N. Stanojevic[5]
[1] *Casa di Cura Nostra Signora di Lourdes (Napoli)*
[2] *Università degli Studi di Perugia (Perugia)*
[3] *AORN A. Cardarelli (Napoli)*
[4] *Università degli Studi di Napoli Federico II (Napoli)*
[5] *Urogenital Center (Belgrado)*

In questo video viene mostrata la correzione chirurgica della curvatura congenita ventrale del pene utilizzando un approccio peno-scrotale. Si procede con una singola incisione peno-scrotale ventrale approcciando direttamente la tunica albuginea latermalente all'uretra. La fascia di Buck viene incisa da un solo lato e non si distacca il fascio vascolo-nervoso dal Dartos e dalla cuta soprastanti. Un'erezione passiva viene effettuata con fisiologica per valutare la curvatura. Si procede a delle incisioni della tunica albuginea che vengono poi suturata con punti staccati in PDS 3.0. Si evidenzia la correzione dell'asta e si richiude con sutura continua PDS 5.0. Bendaggio semi-compressivo per 3 giorni. Catetere Foley sh 16 per 24 ore.

5. #93: CORREZIONE DI UN INTERVENTO FALLITO DI INGROSSAMENTO PENIENO: RIMOZIONE CHIRURGICA DI UN PARAFFINOMA E RICOSTRUZIONE DELLA CUTE PENIENA

A. Ruffo[1], N. Stanojevic[2], F. Riccardo[1], F. Esposito[1], F. Trama[3], G. Romeo[4], F. Iacono[5]
[1] *Casa di Cura Nostra Signora di Lourdes (Napoli)*
[2] *Urogenital Center (Belgrado)*
[3] *Università degli Studi di Perugia (Perugia)*
[4] *AORN A. Cardarelli (Napoli)*
[5] *Università degli Studi di Napoli Federico II (Napoli)*

Il video mostra il caso di un uomo di 40 anni sottoposto precedentemente ad un intervento fallito di aumento della circonferenza peniena. Al paziente ere stato iniettato della paraffina per ottenere l'ingrossamento penieno.
La circonferenza peniena era di 15 cm. Il paziente aveva perso completamente la sensibilità di tutta la cute peniena.
Abbiamo deciso di romuovere completamente il paraffinoma e ricostruire la cute peniena

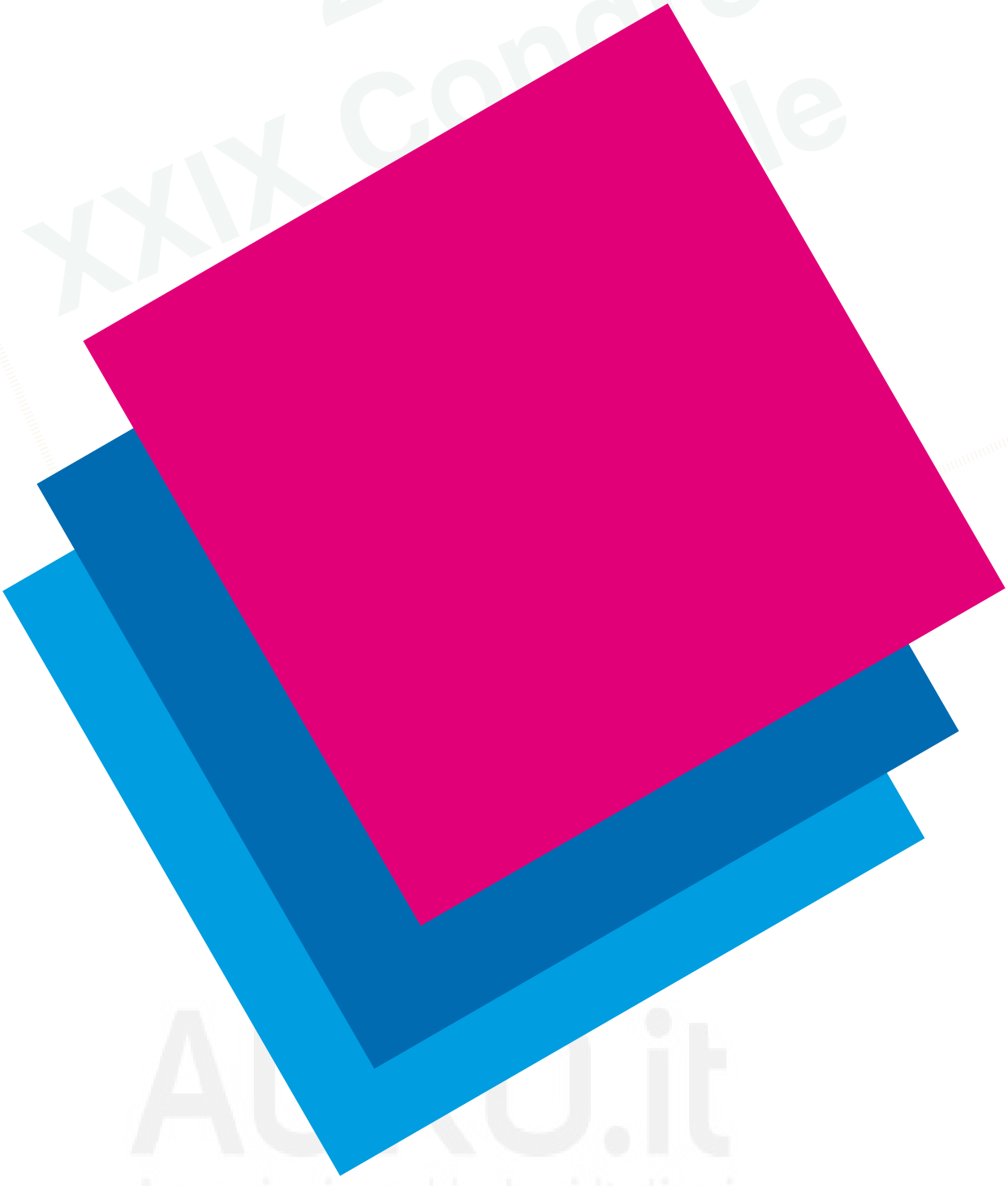
6. #90: FALLOPLASTICA CON LEMBO LIBERO DI GRAN DORSALE (MLD) NELLA CHIRURGIA DI RIASSEGNAZIONE DEL SESSO DONNA-UOMO

A. Ruffo[1], N. Stanojevic[2]

[1] *Casa di Cura Nostra Signora di Lourdes (Napoli)*

[2] *Urogenital Center (Belgrado)*

Nel seguente video mostriamo i primi due steps dell'intervento di riassegnazione chirurgica del sesso femmina-maschio (FTM) in un paziente con disforia di genere. Per la ricostruzione del neofallo viene utilizzato il lembo libero di gran dorsale. Il paziente era già stato sottoposto precedentemente a intervento di isterectomia con annesiectomia e a mastectomia bilaterale. Nel 1°intervento si procede a colpocleisi e chiusura della vagina. Si procede a ricostruzione dello scroto utilizzando le grandi labbra e a uretroplastica prossimale. Il clitoride viene scheletrizzato e posizionato lateralmente all'uretra. Si preleva il lembo libero di gran dorsale con vasi e nervi. Questo viene anastomizzato a livello dell'arteria femorale e della vena safena. Per ricostruire l'uretra distale si utilizza un graft di cute. Dopo 6 mesi viene effettuato il 2°step. Si ricostruisce l'uretra. Si rimuove il grasso in eccesso dal neofallo e lo si tubularizza donandolgi l'aspetto finale. Si procede alla formazione del glande incidendo la cute distale. Vengono inserite le protesi testicolari. Nel 3° step verrà impiantata la protesi peniena.



20 maggio 2022

15:30 - 16:30

sala B

Comunicazioni 4- Pelvic Surgery

Moderatori: Riccardo Grisanti, Paolo Puppo

Focus on: *Cistectomia nel NMIBC*
Paolo Puppo

1. #142: RARE COMPLICATION OF RENAL INFECTION: A NEPHROBRONCHIAL FISTULA. A CASE REPORT

D. Del Biondo[1], G. Napodano [1], S. Tamburrini [2], D. Di Domenico [3], A.R. Zito [1]

[1] *Ospedale del Mare, Urologia (Napoli)*

[2] *Ospedale del Mare, Radiologia (Napoli)*

[3] *Ospedale Sacro Cuore di Gesù - Fatebenefratelli (Benevento)*

Objective

We present a rare case of nephrobronchial fistula in a middle age immunocompetent woman who complained cough and weight loss, with underlying asymptomatic nephrolithiasis.

Materials and Methods

A 50 years-old woman referred at our hospital complaining dry cough, abdominal pain and vomit for the past 7 days. She was afebrile and referred history of asymptomatic left kidney lithiasis. Physical examination revealed an emaciated individual, during the previous year she had lost 35 pounds and had numerous episodes of back pain, nausea, and night sweats and and repeated urinary tract infections. Urinalysis revealed urinary leukocyte esterase activity 500 (Leu/ul), trace of hemoglobin 0.10 mg/dl, proteins 70 mg/dl and many gram negative rods. A chest x-ray film showed a small area of infiltration on the posterobasal zone of the left hemidiaphragm. Abdominal ultrasound detected an enlarged left kidney with dilated calico-pelvic system fluid filled by inhomogeneous hypoechoic material and a staghorn calculous. The fluid filled calico-pelvic system appeared continuing into a loculated collection extending above the perirenal fascia with associated inhomogeneity of perirenal fat .A suspected ultrasound diagnosis of complicated pyonephrosis was formulated, and Computed Tomography (CT) of chest, abdomen and pelvis with intravenous contrast was performed in order to stage and define the extension of the pathology (1). CT with intravenous contrast confirmed the presence on and enlarged kidney with staghorn calculous and markedly dilated fluid filled calico-pelvic system. The calico-pelvic dilated system continued into a fluid collection in the perirenal fat at the upper pole of the kidney, with hyperemic wall referable to a perinephic abscess. The perinephric abscess was connected to bronchi through a fistulous tract that passed thorough the left hemidiaphragm. Bronchi involved into the fistulous tract appeared enlarged with thickened and irregular walls,

they appeared air filled, and no endobronchial fluid stasis was detected.

Results

A diagnosis of complicated pyonephrosis with perinephric abscess and nephrobronchial fistula was formulated. The patient was admitted to the hospital and treated with antibiotic .A left tube nephrostomy was placed. Six days after the placement of nephrostomy and intravenous antibiotic therapy, laboratory data showed a significantly improvement of the inflammatory status. Follow up CT was performed after 15 days from the admission, CT findings demonstrating considerable reduction of the dilatation of calico pelvic system and of the perinephric abscess at the upper pole. Moreover the fistulous tract was not appreciable anymore, instead an inhomogeneous tissue with moderate contrastographic enhancement was detected, it was referred to the possibly presence of reparative tissue, and the healing of the fistulous connection was suspected at CT . Renal scintigraphy was performed, demonstrating a nonfunctioning left kidney . Left nephrectomy was performed under general anesthesia. At surgery, on separation of the upper renal pole there was an escape of pus and a fistulous communication was found between the upper renal pole and the left diaphragm, the fistulous wound was appreciable and appeared healed, confirming follow up CT findings. The fistulous tract was excised flus with the diaphragm, the diaphragmatic ren was closed with reinforcement by a pad of fat. Subdiaphragmatic drain was placed. The healing of the fistula avoided any pulmonary complications during surgery (2,3,4,5,6). Histological examination of the kidney showed xanthogranulomatous pyelonephritis.

Discussions

Pyonephrosis and xanthogranulomatous pyelonephritis confined to the perinephric area by perirenal fascia may be indolent and remain occult, symptoms may appear in the advanced stages when the suppurative lesion disrupt the surrounding perirenal fascia and involve the adjacent anatomic structure [1,7,8, 9, 10]. Early recognition of patients with a perinephric abscess may be difficult and symptoms often are non-specific [11].

The symptoms of perinephric abscess include fever and chills, unilateral flank pain or tenderness in the back, generalized abdominal pain, night sweats, weight loss. Patients with this condition may have symptoms referable to the urinary tract, although pulmonary symptoms may dominate causing the urinary tract disease overlooked completely. Pulmonary symptoms usually referred are chest pain, cough, copious foul-smelling sputum and productive cough, and sometimes patients suffered of uroptosis, a urine-like taste in the mouth. B The admission history and physical examination are helpful when they reveal the classic symptoms of a primary genitourinary or cutaneous infection, followed by the onset of fever and flank pain, unfortunately, such a history is obtainable in only about 50% of patients. This may explained by the fact that the renal infection may be confined to the perinephric area by perirenal fascia, and it may be indolent and remain occult, becoming symptomatic only when the suppurative lesion disrupts the surrounding perirenal fascia and the process extends to involve the adjacent anatomic structure. Nephrobronchial fistula is an extremely rare event, patients often present with respiratory symptom, cough and productive cough are the more frequent symptoms, whereas the renal infectious process may be silent in half of patients. The surgical treatment of a nephrobronchial fistula is nephrectomy and appropriate drainage of the perinephric abscess. These patients typically respond well to drainage and antibiotic therapy but often require nephrectomy, as in our case. Based on our previously reported experience [4], the presence of ipsilateral chest lesion in patient with renal disease should alert the clinician of the possibility of a pulmonary extension of the renal infectious process. Our case confirmed data previously published, nephrobronchial fistula was found in left kidney stage III xanthogranulomatous pyelonephritis in a middle age immunocompetent woman who presented with respiratory symptom and underlying renal disease.

Conclusion

The most common cause in the formation of a nephrobronchial fistula is a preexisting perinephric abscess, in patients with renal infectious disease an ipsilateral postero-basal pulmonary infiltrate should alert the clinician to consider renal abnormality as a cause o of lung complication even in the absence of urinary symptoms.

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2. #29: XPERT® BC DETECTION AS A DIAGNOSTIC TOOL IN UPPER URINARY TRACT UROTHELIAL CARCINOMA: PRELIMINARY RESULTS

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Objective

Upper urinary tract urothelial carcinoma (UTUC) represents about 5-10% of all urothelial malignancies with an increasing incidence [1]. The standard diagnostic tools for detection of UTUC are cytology, Uro-CT scan and ureterorenoscopy (URS) [2]. No biomarker to be included in the daily clinical practice has yet been identified [2]. The aim of our study was to evaluate the potential role of Xpert®Bladder-Cancer (BC) Detection in the diagnosis of UTUC.

Materials and Methods

Samples were analyzed with upper tract (UT) urinary cytology, Xpert®BC Detection on UT urines and with Urovysion® Fluorescence in situ hybridization (FISH) test. After urine collection, the patients underwent retrograde pyelography and/or URS and if positive a UT biopsy. The Xpert®BC Detection was reported by the software as negative or positive (cut-off total LDA=0.45). Sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of cytology, Xpert®BC Detection and Urovysion®FISH were calculated using Pyelography / URS and/or histology results as reference.

Results

130 analyses were performed in 82 patients and 24 cases were excluded from the analysis due to a not diagnostic Xpert® BC Detection (3.8%), cytology (6.1%) or Urovysion® A total of 106 analyses (81.5%; 87 URS and 19 Pyeloghrapies) were evaluable and included in the study. Overall sensitivity was 100% for Xpert® BC Detection, 51.9% for cytology and 92.6% for Urovysion® FISH test The sensitivity of Xpert® BC Detection was 100% in both, LG and HG tumours, sensitivity of cytology increased from 35% in LG to 100% in HG tumours and of Urovysion® FISH from 90% in LG (n: 20) to 100% in HG (n: 7) tumours. Specificity was 13.9% for Xpert® BC Detection, 96.2% for cytology and 86.1% and for Urovysion® FISH. PPV was 28.4% for Xpert® BC Detection, 82.4% for cytology and 69.4% for Urovysion®, NPV was 100% for Xpert® BC Detection, 85.4% for cytology and 97.1% for Urovysion®.

Discussions

Xpert®BC Detection is highly sensitive in detecting UTUC, with an excellent NPV; it may be used with the aim to avoid unnecessary endoscopic exploration of the UT, reducing the invasiveness and the burden of URS complications and it could be a useful tool for diagnosis in ambiguous and complex cases.

Conclusion

Xpert®BC Detection is highly sensitive in detecting UTUC

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3. #173: SYNCHRONOUS BLADDER AND PROSTATE CANCERS SPECIMENS OBTAINED FROM RADICAL CYSTOPROSTATECTOMY: A SINGLE-CENTER RETROSPECTIVE ANALYSIS

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Objective

The aim of the present study was to analyze the incidence, histopathological characteristics and clinical outcomes of patients affected by incidental prostate cancer (PCa) found in radical cystoprostatectomy (RCP) specimens excised for bladder cancer, to determine whether these cancers types affected the follow-up management and whether prostate-sparing cystectomy would be appropriate for these patients.

Materials and Methods

The current study retrospectively analyzed the data of patients who underwent RCP for transitional cell carcinoma (TCC) of the bladder at our institution, excluding those with a preoperative diagnosis or clinical suspicion of PCa. Next, the patients affected by incidental PCa in the RCP specimens were identified, following which their demographic, histopathological and clinical outcome data were collected.

Results

Overall, it was found that, of the 303 patients undergoing RCP for bladder cancer, 69 (22.7%) had incidental PCa, with a median age of 71.6 (age range, 54-89 years). In total, 23 (33.33 %) of the 69 patients with incidental PCa were considered to have clinically significant prostate disease.

Discussions

Incidental PCa in RCP specimens of patients operated for bladder cancer (BC) without preoperative evidence of prostatic disease shares similar histological and morphological characteristics with latent tumors identified in several autopsies (1-3). According to the literature, the frequency variability of incidentally discovered PCa in cystoprostatectomy specimens is extremely high, ranging from 17%-70% (4, 5), owing to various factors. In the present study, only tumor stage and grade were used to define the aggressiveness of cancer as tumor volume was not available on the pathological report. Our results showed that 46 (66.66%) of the incidentally diagnosed PCas were considered as “non-aggressive” as they were organ-confined or with a Gleason score of < 7 (4+3). These results were in line with those of other studies, where most of detected tumors were not clinically significant, with only few patients requiring therapeutic treatment (6, 2, 3). The preservation of continence and erectile function, as well as guaranteeing excellent oncological results, remain the primary goals of the treatment of BC with RCP. Various techniques can help to preserve postoperative continence and erectile function, such as leaving the apex or the entire tissue of the prostate; however, the potential risk of not removing the synchronous PCa appears can be problematic. By contrast, the probability that patients undergoing RCP and have PCa will not die from prostatic disease is high. Determining whether patients are suitable for prostate-sparing surgery can be difficult due to the wide variability of both cancer rates. Routine biopsy templates leave a certain degree of uncertainty regarding the sensitivity of identifying clinically significant PCa when attempting to select those patients for prostate-sparing cystectomy. The completeness of an otherwise successful radical cancer operation must not be sacrificed by potentially leaving cancer in the apical prostatic margin or residual tissue for PCa that is deemed to be clinically significant. According to Pettus et al. (7), only age was a predictive factor for PCa. This result was not in line with the present data, which suggested that the patient’s age was not a preoperative factor associated with a significant status of PCa. Likewise, the preoperative PSA level does not appear to be significantly associated with the likelihood of incidentally discovering PCa (8). In the present study, PSA values and DRE findings were available for all patients, but their results were not indicators for cancer. This finding suggests no benefit of preoperative PSA screening and DRE in RCP candidates, which was consistent with results of previous studies (6). These findings indicate that it is currently not possible to adequately determine which patients can safely be selected for prostate-sparing cystectomy and that the treatment of choice, in cases of MIBC, remains RCP and the current study is in agreement with these findings.

Conclusion

It is relatively common to identify incidental PCa in RCP specimens but no preoperative predictive factors were identified that were able to determine “non-aggressive” PCa status. So, the present results demonstrate the need for a careful and complete prostate removal during RCP. Nevertheless, since organ-sparing surgeries are widely performed in young population, due to the impossibility of predicting aggressive prostate cancer, these patients require close monitoring through lifelong PSA surveillance, particularly focusing on the possible relapse of PCa after RCP.

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4. #25: EARLY VERSUS DELAYED RADICAL CYSTECTOMY FOR BCG-REFRACTORY NMIBC: A SINGLE-INSTITUTE COMPARATIVE ANALYSIS

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Objective

Radical Cystectomy (RC) is still considered the gold standard treatment for non-muscle invasive bladder cancer (NMIBC) after BCG (Bacillus Calmette-Guérin) failure (1). However, many patients who are unwilling to undergo this procedure can benefit from some bladder sparing strategies like chemo-hyperthermia (2).The aim of this study was to compare the complications and outcomes of early and delayed RC in patients with NMIBC disease refractory to BCG.

Materials and Methods

This was a retrospective, single-center study. We evaluated 101 patients with BCG-refractory NMIBC who underwent RC from March 2017 to February 2020. Early cystectomy was performed in 56 patients (group A), whereas 45 patients underwent delayed cystectomy, after the failure of conservative treatment with HIVEC (Hyperthermic Intravesical chemotherapy) by COMBAT BRS system with Mitomycin-C (group B).The inclusion criteria were as following: 1) the criteria for BCG refractory disease were met according to EAU guidelines; 2) histologically confirmed high-grade T1 NMIBC (HG-NMIBC) (WHO 2014: High-grade), without concomitant carcinoma in situ (CIS); 3) patients completed BCG protocol. Both groups were compared regarding disease-free survival (DFS), bladder cancer-specific survival (CSS) and urinary diversion techniques. Yates's chi-squared ($\chi 2$) and Student's t-tests were used to compare the statistical significance of differences in proportions and means, respectively. Cancer-specific survival was calculated using the Kaplan-Meier method and the results were compared using the log-rank test. Significance was set at a value of $p<0.05$.

Results

There were no significant differences in the demographics and baseline characteristics among the two groups ($p<0.05$). In group B, 6 out of 45 (13.3%) patients experienced muscle-invasive disease after HIVEC treatment and they underwent preliminary neo-adjuvant systemic chemotherapy. Mean follow-up was 28.54±9.645 in group A and 24.93±9.822 in group B ($p=0.067$) respectively. Lymph nodes were pathologically confirmed to be negative in all patients. No significant differences were observed in intraoperative ($p=0.9762$) and postoperative ($p=0.8792$) complications. 6 out 56 patients of group A and 13 out 45 patients of group B underwent incontinent urinary diversions ($p=0.0388$), while the remaining patients underwent orthotopic neobladder (ONB) reconstruction. Log-rank test showed no significant differences in DFS ($p=0.717$) and CSS ($p=0.170$) between the two groups.

Discussions

RC is the gold standard treatment for the management of BCG failure NMIBC despite the procedure is associated with high perioperative morbidity and mortality (3). In this patients, ONB neobladder diversion may be a reliable option (4). Bladder-sparing therapies need not only to be reproducible, safe and effective, but they should also not foreclose the opportunity for a high quality RC, when necessary (5). Several studies showed that patients who underwent HIVEC have greater possibilities to avoid RC (6) (7). In our experience, no significant differences were detected in terms of DFS and CSS between early and delayed radical cystectomy. Moreover, we did not observe any differences regarding intraoperative and postoperative complications. However, the delayed RC exposes the patient to a greater risk to not be candidate to an ONB reconstruction.

Conclusion

Our results might help to guide patient, in a shared decision-making process, about the choice of a conservative management in case of BCG-refractory disease.

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5. #114: IMPACT OF SMART-WORKING AND LOCKDOWN COVID-19 RELATED ON ROBOTIC ASSISTED SIMPLE PROSTATECTOMY FUNCTIONAL OUTCOMES

A.M. Bove[1], A. Brassetti[1], U. Anceschi[1], G. Tuderti[1], M. Ferriero[1], L. Misuraca[1], R. Mastroianni[1], G. Simone[1]
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Objective
Robot-assisted simple prostatectomy (RASP) is an effective and safe procedure for severe bladder outlet obstructive symptoms relief. During COVID-19 pandemic, the need for social distancing caused profound changes in working and social habits for the greatest part of the general population. This is the first study investigating the impact of lockdown and smart-working adoption on functional outcomes after RASP.

Materials and Methods
Baseline and pre-operative flowmetry parameters were routinely recorded. Validated questionnaires: International Index of Erectile Function (IIEF), International Consultation on Incontinence Questionnaire (ICIQ), International prostatic symptoms score (IPSS) with its quality of life (QoL) index, Male Sexual Health Questionnaire (MSHQ), Overactive bladder questionnaire (OAB-Q) and Quality of Recovery visual analogue scale (QoR-VAS) were administered pre-operatively to every patients. Yearly follow-up assessments included: flowmetry and validated questionnaires. Composite outcomes (Trifecta) was defined as combination of: post-operative Q-max>15 ml/sec, IPSS score<8 and absence of complications. Pentafecta included also post-operative ejaculation persistence (MSHQ score>0) and the Erectile function maintenance (ΔIEEF<6). The study population was divided into two cohorts based on whether they switched to smart-working/lockdown (SW/LD) vs those who kept their regular occupation.

Results
Out of 81 patients treated with RASP between 2012 and 2020 in our Institution, 57 (70%) switched to SW/LD during pandemic. Patients demographics, prostate volume, PSA, questionnaires score and baseline flowmetry results are shown in Table 1. As expected, the lockdown population was older and with higher prevalence of ASA ≥3 (both p<0.001). The remaining baselines features were comparable between groups. At a median follow-up of 37 months, most functional outcomes were comparable between cohorts (Table 2). Despite no imbalance in baseline IIEF score and 12 months QoR-VAS score, at last follow-up, the SW/LD group experienced significant worsening of erectile function (p<0.001) and self reported QoR-VAS score compared to the control group (p<0.01).

Conclusion
Our results highlighted the negative impact of SW/LD social distancing conditions on erectile function and on subjective perception of urinary obstructive symptoms improvement following RASP.

6. #123: FUNCTIONAL OUTCOMES COMPARISON BETWEEN PATIENTS UNDERGOING ROBOTIC ASSISTED SIMPLE PROSTATECTOMY WITH OR WITHOUT AN INDWELLING CATHETER

A.M. Bove[1], A. Brassetti[1], G. Tuderti[1], M. Ferriero[1], U. Anceschi[1], L. Misuraca[1], R. Mastroianni[1], G. Simone[1]
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Objective
Robot-assisted simple prostatectomy (RASP) is a feasible and effective procedure for benign prostatic obstruction (BPO). The most severe stage of BPO leads to acute urine retention (AUR). This condition compels patients to keep an indwelling catheter (IC). In this study, post-operative functional outcomes of patients with IC were compared to those of patient with less severe BPO who never experienced AUR.

Materials and Methods
Pre-operative assessment included: flowmetry, validated questionnaires: International Index of Erectile Function (IIEF), International Consultation on Incontinence Questionnaire (ICIQ), International prostatic symptoms score (IPSS) with its quality of life (QoL) index, Male Sexual Health Questionnaire (MSHQ), Overactive bladder questionnaire (OAB-Q) and Quality of Recovery visual analogue scale (QoR-VAS). Follow-up assessments included Flowmetry and validated questionnaires. Trifecta was defined as: post-operative Q-max>15 ml/sec, IPSS score<8 and absence of complications. Pentafecta included also post-operative ejaculation persistence (MSHQ score>0) and the Erectile function maintenance (ΔIEEF<6). The study population was split into two cohorts based on whether patients had an IC or not.

Results
81 patients underwent RASP between 2012 and 2020 in our Institution. 31 patients (38%) had an IC at the time of surgery. Patients demographics, prostate volume, PSA, questionnaires score and baseline flowmetry results are shown in Table 1. Patients with IC presented with a significantly higher prostate volume and baseline PSA (p<0.01 and p=0.02 respectively). The number of patients under 5a-reductase inhibitors treatment was also higher in this cohort (p=0.02). Post-operatively, every patient improved their obstructive symptoms. In terms of validated questionnaires score and flowmetry findings, no significative discrepancies were found at long term follow-up between groups (Table 2). Trifecta and pentafecta achievement rate were comparable between groups. However, postoperative PSA and post void residue were higher in the IC cohort (p=0.04 and p=0.03 respectively).

Conclusion

In our series, patients approaching surgery with IC will experience slightly higher PSA decline and higher PVR. Clinical insignificance of these outcomes is supported by comparable perioperative and mid-term functional outcomes assessed with either trifecta or pentafecta.

7. #118: IMPACT OF OBESITY ON PERI-OPERATIVE AND LONG-TERM FUNCTIONAL OUTCOMES AFTER ROBOTIC ASSISTED SIMPLE PROSTATECTOMY

A.M. Bove[1], A. Brassetti[1], R. Mastroianni[1], L. Misuraca[1], U. Anceschi[1], M. Ferriero[1], G. Simone[1]

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Objective

Robot-assisted simple prostatectomy (RASP) is an effective and safe procedure for severe bladder outlet obstructive symptoms relief. Over the years, obesity became a worldwide epidemic disorder in western Countries, increasing the overall morbidity and mortality rate. In this study we investigated the impact of obesity on peri-operative and long-term functional outcomes of RASP.

Materials and Methods

Baseline flowmetry parameters were prospectively recorded. Validated questionnaires: International Index of Erectile Function (IIEF), and International Consultation on Incontinence Questionnaire (ICIQ), International prostatic symptoms score (IPSS) with its quality of life (QoL) score, Male Sexual Health Questionnaire (MSHQ), Overactive bladder questionnaire (OAB-Q) and Quality of Recovery visual analogue scale (QoR-VAS) were administered pre-operatively. Follow-up assessments included Flowmetry and validated questionnaires. Composite outcomes (Trifecta) was defined as combination of: post-operative Q-max>15 ml/sec, IPSS score<8 and absence of complications. Pentafecta included also post-operative ejaculation persistence (MSHQ score>0) and the Erectile function maintenance (ΔIEEF<6). Data were stratified by BMI (<30 or ≥30).

Results

Overall, 81 patients underwent RASP between 2012 and 2020 in our Institution. Baseline demographics and clinical features, questionnaires score and baseline flowmetry results were comparable between obese and non-obese cohorts (Table 1). At a median follow-up of 37 months, obese patients reported a significantly lower subjective improvement in IPSS (p=0.02) and OABQ scores (p<0.001) and higher incidence of stress incontinence requiring Duloxetin (p<0.001). Flowmetry outcomes, namely Q-max and post void residual volume, were also worse in this cohort (p=0.02 and p=0.03, respectively [Table 2]). Nonetheless, at comprehensive outcomes assessment, obese patients had comparable Trifecta (67% vs 54%, p=0.39) and pentafecta achievement (20% vs 17%, p=0.76) rate.

Conclusion

Our prelimirary results proved that obesity is associated with worse objectively assessed functional outcomes (storage LUTS and incontinence rate) after RASP. At comprehensive assessments of outcomes by means of trifecta and pentafecta, obese patients reported outcomes comparable to non-obese population.

20 maggio 2022

15:30 - 16:30

sala C

Comunicazioni 5-
Chirurgia delle Masse Renali

Moderatori: Giancamillo Carluccio, Giorgio Pomara

Focus on: *Solo chirurgia per le piccole masse renali?*
Giorgio Pomara

1. #167: DOES THE SIZE OF THE MASS PREDICT THE PATHOLOGY OF SUSPECTED KIDNEY LESIONS?

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Objective

The current standard of care for radiographically identified enhancing renal lesions is surgical treatment. However, some of these lesions prove to be benign and do not truly warrant the choice of surgical treatment. Mass size has been traditionally described as a parameter to predict the malignant potential. For this reason, we reviewed our experience with surgically treated renal masses, correlating the size of mass with its final pathology.

Materials and Methods

We performed a retrospective analysis of our last 194 laparoscopic partial nephrectomies for suspected kidney lesions, excluding cases where the nature of the renal mass was clearly benign (e.g. cystic masses). Renal tumors were staged by the TNM classification system and their correlation with the size of mass has been evaluated.

Results

Overall, 68% of masses (131 cases) were determined to be renal cell carcinoma and 63 (32%) were benign. The distribution of the renal tumor was as follows: 104 cases of clear cell carcinoma (79,3%), 20 cases of papillary renal cancer (both type I and type II; 15,2%) and 7 cases of chromophobe renal cancer (5,5%). Masses were stratified by size. 122 masses were smaller than 4 cm and 47 (38,5%) of these were benign. There were 67 lesions between 4 cm and 7 cm with an 23,8% benign rate (for a total of 16 cases of benign pathology). Five masses were > 7 cm in size and none of these was benign. Chi square testing revealed the 38,5% benign rate of the < 4 cm group to be significantly different than the benign rates of the other groups.

Discussions

It is known that almost 30% of suspicious Small Renal Masses (SRMs) are not malignant [1, 2, 3]. The incidence rate of benign lesions increases noticeably as tumor size decreases [4, 5, 6, 3]. With the confidence of an oncologic equivalence of Nephron sparing surgery to Radical Nephrectomy, such patients are safely diagnosed and managed without risking the loss of significant renal tissue. Similarly, minimally invasive ablative techniques for the treatment of SRMs have become more common, mainly in elderly and comorbid patients [7]. Moreover, only observation of SRMs was suggested for a selected group of patients, mostly to spare them from a possible unnecessary surgery [8]. Many recent studies focused on demographic and preoperative clinical parame-

ters associated with benign pathology; of these parameters, tumor size was strongly correlated and it can be useful to predict the likelihood of benign, indolent or aggressive pathology findings.

Conclusion

The preponderance of renal lesions removed for benign pathology occurs when lesion size is small, typically less than 4 cm. This information may be useful in deciding to offer expectant management of an otherwise surgical lesion in a patient who is a poor candidate to undergo an operative treatment.

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2. #163: HILAR TUMORS AND THEIR TREATMENT BY LAPAROSCOPIC PARTIAL NEPHRECTOMY: TECHNIQUE, COMPLICATIONS AND OUTCOMES

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Objective

To describe our technique and postoperative results of laparoscopic partial nephrectomy in renal hilar tumors.

Materials and Methods

We reviewed all partial nephrectomies that have been performed using a laparoscopic approach in the past decade at our institution, when the learning curve was over. A total of 85 patients (33,6%) was affected by hilar tumors. A hilar tumor was defined as a lesion suspicious for renal cell carcinoma adjacent to the major renal vessels on pre-operative cross-sectional imaging. All surgeries were performed by a single urologist (RS). Mean tumor size was 4,6 cm (range: 1,5-8 cm). 33 surgeries (38,8%) were performed with renal artery clamping and the rest under controlled hypotension. After clamping the renal artery, excision of the tumor

mass was performed. Running sutures to the base the tumor bed and for parenchymal reconstruction were applied.

Results

All surgeries were completed laparoscopically. Mean surgical time was 174 min (range: 60-360). Mean ischemia time was 20 min (range 8-48). Estimated intraoperative blood loss was 375 mL (range: 150-800). In one patient, a small splenic lesion occurred as an intraoperative complication, treated conservatively by bipolar coagulation and the application of haemostatic agents. One patient necessitated open radical nephrectomy for continuous and massive bleeding from the tumor bed and another seven patients underwent double j stent placement for urine extravasation in the immediate postoperative period. Postoperative nuclear scan showed functional kidney moiety in all patients. Histopathological examination confirmed renal cell carcinoma in 55 of the patients (68%). In a median follow-up of 24 months no local recurrence or systemic progression occurred.

Discussions

In the last years the advantages of laparoscopy have raised interest in laparoscopic partial nephrectomy (LPN); in effect, some centres propose today LPN as the preferred surgical choice, because it is able to duplicate the fundamental principles and outcomes of open partial nephrectomy (OPN) [1]. Nevertheless, debate about the management of deeper lesions in LPN is still open. When the lesion growth pattern is considered, LPN is used more frequently for the treatment of exophytic lesions [2]. Standardization in the classification of the depth of renal lesions is lacking, especially for central and hilar tumors. Some authors define central tumours as those directly abutting or approaching the renal sinus fat or the pelvicaliceal system, whereas others define them as those that are completely buried within the renal parenchyma, irrespective of their proximity to the renal sinus [3]. Hilar tumors can be identified as those in contact with the main renal vessels. Due to this heterogeneity in the classification, there is a variability of incidence of these tumors in the literature

(6.5–48.5%) [4]. These deeper tumors are difficult to resect and are a challenge, especially in laparoscopy. This could be the main reason why LPN is underutilized in favour of laparoscopic radical nephrectomy. In effect, in order to obtain success in LPN, the surgeons have to demonstrate that they have the laparoscopic skill to dissect tumours from renal vessels, to suture and to perform the renal cooling technique. According to our data, this technique seemed safe, because the

complication rate was low (9/85 cases). Then, was ischemia time too long? It didn't seem so. Mean warm ischemia time was 20

min and postoperative nuclear scan showed functional kidney moiety in all patients. Moreover the overall operative time was almost 3 h on average. Were the oncologic outcomes comparable to OPN? No recurrence was recorded within a median follow-up of 24 mo.

Conclusion

Our data confirmed that laparoscopic partial nephrectomy for hilar tumors is a feasible and safe procedure in the hands of experienced laparoscopic surgeons.

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3. #165: LAPAROSCOPIC RADICAL NEPHRECTOMY IN PATIENTS WITH THREE OR MORE COMORBIDITIES: IS IT AN EFFECTIVE AND SAFE PROCEDURE?

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Objective

Laparoscopic surgery for kidney treatment is a common procedure but, today again, many people doubt the efficacy and the safety of this procedure in patients with several comorbidities. For this reason, with an experience of about 20 years in laparoscopic surgery, we conducted a retrospective comparison of results of laparoscopic radical nephrectomy between patients with several comorbidities and patients with no comorbidity.

Materials and Methods

In an evaluation of the last 178 radical nephrectomies, the subjects were 35 patients with three or more noteworthy comorbidities (group A) and 62 patients with less than three noteworthy comorbidities (group B). These 97 patients were 66 men and 31 women with a mean age of 61.7 years (age range, 33-82 years). The data from these two groups were compared for American Society of Anesthesiology (ASA), duration of surgery, estimated blood loss, complications during and after surgery, conversion rates and length of hospital stay.

Results

The initial ASA score and mean age (72,5 years for group A and 57,1 years for group B) were significantly higher for the patients with three or more noteworthy comorbidities. However, duration of surgery (139 minutes in the group A and 159 minutes for group B), estimated blood loss (153 cc in the group A and 200 cc in the group B) and length of hospital stay (6,7 days in the group A and 7 days in the group B) were similar for both laparoscopic groups. Instead, considering the complications and conversion rates, in group A there was no conversion to open surgery but for an intraoperative complication, i.e. a splenic injury, a patient in this group underwent splenectomy for bleeding 5 days after kidney surgery. A conversion to open surgery was recorded in group B during kidney surgery.

Discussions

Laparoscopic radical nephrectomy is not as invasive as open radical nephrectomy [1, 2], allowing for a faster recovery than open surgery. Patients benefit from the advantages of laparoscopy such as reduced requirements for post-operative analgesia and early oral intake. The absence of a large incision reduces post-operative pain and therefore keeps the need for sedating analgesics, which can cause confusion and agitation in elderly patients, to a minimum. This also helps early post-operative pulmonary function. According to the study of a comparison of pulmonary functions after laparoscopic and open cholecystectomies [3], deep breathing is not inhibited by pain or narcotics in cases of laparoscopic surgery and the pulmonary function is better preserved after laparoscopic surgery than after open surgery. Eden et al. reported that the pulmonary function after laparoscopic nephrectomy was better than after open nephrectomy [4]. However, creating a
pneumoperitoneum can cause cardiovascular changes similar to those of heart failure [5]. The increase in both systemic and pulmonary vascular resistances raises the cardiac after load, which results in a decrease in cardiac output. The preload is also increased, as indicated by measurements of the central venous and right atrial pressures. The situation can
be complicated if laparoscopically-induced oliguria is not taken into consideration, because inadvertent overhydration can lead to hemodilution and congestive heart failure. Thus, comorbidities (such as renal failure, cardiovascular disease, pulmonary diseases and diabetes) are risk factors of intra- and post-operative complications of laparoscopic surgery. To reduce such a risk, faster and safer surgical procedures are recommended. In the present study, duration of surgery and estimated blood loss were similar in both groups. Furthermore, the duration of hospital stay was similar in both groups. The ASA scores of group A were worse than those of group B. Usually, the physical strength of patients with multiple comorbidities is weaker than that of healthy

patients and the time needed to regain normal activity for patients with comorbidities is longer than for healthy patients. However, in this study, the convalescence of group A was not worse than that of group B. Thus, laparoscopic surgery is suitable for patients with comorbidities.

Conclusion

Laparoscopic nephrectomy for patients with multiple noteworthy comorbidities is safe and minimally invasive.

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4. #196: SHOULD WE RECONSIDER OR DEFINITELY REVISE THE DEFINITION OF IMPERATIVE SETTING FOR MINIMALLY-INVASIVE PARTIAL NEPHRECTOMY? ANALYSIS OF A MULTI-INSTITUTIONAL COLLABORATIVE SERIES

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Objective

The proper definition of imperative setting for minimally-invasive partial nephrectomy (MIPN) is hampered by the coexistence of complex surgical indications with heterogenous severity of preoperative renal impairment (1-2). The endpoint of the study was to analyze the progression to significant chronic kidney disease (sCKD) in patients who underwent MIPN for an elective or imperative indication on a large multicentric series and to identify predictors of sCKD in the imperative subgroup.

Materials and Methods

Between July 2007 and October 2021, a collaborative minimally-invasive renal surgery dataset (n=2218) was queried for "imperative" indications (n=344). Patients with missing data were excluded from the analysis. Kaplan-Meier analysis was computed to analyze the risk of progression to sCKD according to surgical indications and severity of preoperative renal impairment assessed by preoperative eGFR (peGFR) in the whole series. Univariable and multivariable Cox regression analyses were performed to identify predictors of progression to sCKD (stages ≥3b). For all statistical analyses, a two-sided $p < 0.05$ was considered significant.

Results

Out of 344 iMIPN patients, 33 were solitary kidneys, 240 had impaired preoperative renal function (CKD stage≥3a), 107 had bilateral renal tumors. At median follow-up of 26 months (12-49), on Kaplan-Meier analysis, patients with bilateral tumor and solitary kidneys without peGFR impairment (>60) showed trends of progression to sCKD and ESRD comparable to MIPN performed in the elective setting for unilateral renal masses, respectively (Fig.1 each p>0.5). Solitary kidneys with moderate or severe peGFR complaint (45-60) showed the worst trend of progression to ESRD in analogy to patients who underwent MIPN for unilateral renal mass with equivalent renal function (CKD=3a) (Fig.2; p=0.01). Patients with unilateral renal tumor and severe peGFR impairment (<45) showed similar trends of ESRD to those affected by a solitary kidney with comparable preoperative renal deterioration (Fig.3; p=0.432). On multivariable Cox regression analysis, RENAL score≥9 (HR 3.1; 95% CI 1.07-9.13; p=0.03) warm ischemia time (HR 1.04; 95% CI 1.01-1.07; p=0.008) and preoperative eGFR (HR 0.95; 95% CI 0.92-0.98; p=0.005) were all independent predictors of sCKD in the imperative cohort (Table 1).

Discussions

In the imperative setting, severity of baseline renal impairment, warm ischemia time and tumor complexity are all independent

predictors of sCKD in at a mid-term follow-up.

Conclusion

According to our findings, the concept of imperative indication should no longer include bilateral renal masses or solitary kidney when the preoperative renal function is not compromised.

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5. #168: A RETROSPECTIVE EVALUATION OF 3-D LAPAROSCOPIC RADICAL NEPHRECTOMY FOR LARGE RENAL TUMORS (CLINICAL STAGE > T2N0M0): A SINGLE-CENTRE, SINGLE-SURGEON EXPERIENCE

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Objective

The aim of this study is to retrospectively evaluate the feasibility, safety and long-term results of 3-D laparoscopic radical nephrectomy (LRN) of large renal tumors (clinical stage >T2N0M0).

Materials and Methods

All consecutive patients undergoing 3-D laparoscopic radical nephrectomy (LRN) for a clinical stage > T2N0M0 by a single surgeon between the last 147 radical nephrectomies at our institution were reviewed. All nephrectomies were performed by a single surgeon (RS), with twenty years of experience in laparoscopic surgery and outside the learning curve. The various clinical data (including patient's demographic profile, intraoperative and postoperative parameters and complications) were recorded and analyzed.

Results

A total of 49 patients were included in the study. In seven cases the retroperitoneal approach was chosen while in the remaining cases the surgery was performed using the transperitoneal approach. The mean tumor size was 8.2 cm. Limited hilar lymphadenectomy was performed in 13 (26,5%) patients. The mean operating time and mean estimated blood losses were 161.7 min and 233.8 ml respectively. In 1 patient, conversion to open surgery was required. Blood transfusions were required in 12 (24,4%) patients. The mean hospital stay was 8 days. Intraoperative (bleeding due to liver injury, spleen injury and iliac vein injury) and postoperative complications (delayed bleeding, atelectasis and ileus) were seen in 4 and 10 patients respectively. Renal cell carcinoma was found on histopathological examination in all patients, with this distribution: 40 cases (81,6%) of clear cell carcinoma, 5 cases (10,2%) of papillary renal cancer and 4 cases (8,2%) of chromophobe renal tumor. At the mean follow-up of 24 months, there were no distant metastases.

Discussions

LRN has emerged as the standard of care in most patients with T1 renal tumors who are not candidates for nephron sparing surgery [1, 2, 3]. Even in the early years of the learning curve initial published series consistently revealed that laparoscopic nephrectomy was not only immediately as effective as open surgical extirpation, but also significantly better tolerated than open surgery [4–6]. Laparoscopy resulted in outcomes similar to those of open surgery with no local or port site recurrences and an equivalent incidence of metastases. Several publications addressed the role of LRN for large renal tumors [7, 3, 8, 9]. Changes in the outcomes of larger tumor management allowed even primary tumors greater than 4 cm to be included in the T1 category and the focus of evaluation of laparoscopy as a modality for management
shifted to tumors greater than 7 cm, which now forms the T2 category of primary tumors [10]. As specimen size increases, several unique technical problems arise during laparoscopic surgery. They include decreased working space, maintenance of operator orientation, increased potential for adjacent organ involvement, significant parasitic vessels and difficult specimen removal [8]. We have significant experience with 3-D laparoscopic radical nephrectomy. Our data demonstrate that LRN for large T2 tumors acceptable rates of intra-operative and post-operative complications. When treating a large tumor, it is prudent to be careful and steady during the surgery since large parasitic vessels and an exophytic component of the tumor in the anteromedial aspect of the kidney makes the dissection of renal vessels difficult with an increased risk of transgressing oncological principles or causing major vascular injury. The advantages that we found in our laparoscopy patients are similar to those that have been proved in patients undergoing this surgery for smaller tumors. We believe that our success with such large tumors significantly depends on our experience with advanced laparoscopy. This allowed better instrument control and orientation, and a higher threshold for conversion to open surgery. It is significant that most of the current literature on laparoscopy for large tumors also comes from

centers with a well established laparoscopy team. In addition, the use of 3-D camera is of sure usefulness in this type of surgery.

Conclusion

The 3-D LRN for large renal tumors (clinical stage > T2N0M0) is technically feasible, safe and effective procedure. However, this technically challenging procedure should be attempted by surgeons of significant expertise.

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6. #164: LAPAROSCOPIC RADICAL NEPHRECTOMY FOR T1 TUMORS: IS TRANSPERITONEAL OR RETROPERITONEAL THE BEST APPROACH?

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Objective

In a retrospective study, we have compared the two common approaches, transperitoneal and retroperitoneal, to laparoscopic radical nephrectomy for T1 tumors in patients who were not candidates for kidney sparing surgery.

Materials and Methods

In an evaluation of the last 114 radical nephrectomies performed at our institution, the cases of 67 (58,7%) patients with a solid renal mass of 7 cm or less were retrospectively analyzed according to the type of laparoscopic approach chosen (transperitoneal or retroperitoneal). A single surgeon performed all operations. Preoperative, intraoperative and postoperative factors were compared among the two techniques.

Results

Group 1 consisted of 49 patients undergoing radical nephrectomy using a transperitoneal approach. In this group, the mean age of the patients was 62.5 years and the mean duration of surgery was 188 minutes (with a mean blood loss of 300 cc). On the other hand, the patients in group 2, who underwent laparoscopic radical nephrectomy with a retroperitoneal approach, had an average age of 68.3 years and the average duration of their operation was 165 minutes (with an average blood loss of 275 cc). There was no significant difference in age, American Society of Anesthesiologists class or tumor size between the two groups. Although operative time and blood loss were less for group 2, statistical significance was not achieved. This is due to the tendency to treat larger masses preferentially using the transperitoneal approach which allows for a wider operative space. While not significant, hospital stay and time to normal daily activity were less using the transperitoneal approach. Hernia formation was seen with increased frequency in the group 1.

Discussions

Since the initial laparoscopic nephrectomy was performed in 1990 for a renal tumor [1], this alternative to open radical surgery has become increasingly popular [2,3]. There are several ways to perform laparoscopic radical nephrectomy, including TP and RP approaches. Groups at various institutions favor one particular approach, while others tend to select the approach based on patient characteristics. Nonetheless, there are no good data to evaluate whether one of these two approaches is superior to the other in terms of outcomes. There have been a few retrospective studies comparing techniques of laparoscopic nephrectomy. When considering the controversy over the cost-effectiveness of laparoscopic vs open nephrectomy, a decrease in operative time is a central component for controlling the overall cost of the procedure. Furthermore, this may be useful in patients with significant comorbidities to limit the duration of surgery and anesthesia [4]. While the RP approach had shorter operative times in our study, we found that the TP approach had a shorter hospital stay than the RP approach. Then, while it was not statistically significant, there were trends toward less time to oral intake in the TP group. Although a shorter operative time lowers cost in the RP approach, the lower overall hospital stay and post-operative morbidity of the TP approach offer a considerable advantage over RP approach. There are several possible explanations for these results. Because the RP approach involves the least bowel manipulation, theoretically this should promote earlier return of bowel function, hospital discharge and resumption of normal

activity. We did not find this to be the case. Instead, we found that there is some morbidity associated with the flank extraction excision site in our series. There are other factors that may be considered when deciding on a particular laparoscopic approach. For example, the RP approach theoretically should be a useful technique in patients with a history of intra-abdominal surgeries and it also allows early access to the renal hilum [5]. The TP approach offers a larger working space than the RP approach [4, 5], as well as a an external incision with less associated pain/paresthesia than the RP approach. In addition, we report a shorter hospital stay as well as a more rapid return to normal daily activity for the TP approach than for other approach. Such factors may have a larger role in overall patient satisfaction with the procedure, particularly in those without a surgical history or in those with few comorbidities suggesting another approach. Decreased hospitalization and earlier return to work/normal activity represent considerable cost savings at the societal level.

Conclusion

In our series laparoscopic radical nephrectomy, performed with either a transperitoneal approach or a retroperitoneal approach, showed similar operative times and blood loss. However, when a transperitoneal approach is chosen, the greatest risk of hernia formation must be considered. Nonetheless, the transperitoneal approach was associated with a shorter hospital stay and the earliest resumption of normal activity.

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7. #113: FUNCTIONAL AND ONCOLOGICAL OUTCOMES IN PATIENTS UNDERGOING NEPHRON SPARING SURGERY (NSS): COMPARISON OF LAPAROSCOPIC AND OPEN TECHNIQUES

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Objective

The study aims to compare laparoscopic (LPN) and open (OPN) techniques firstly in achieving the Trifecta and in other secondary aspects (PADUA and RENAL score, size, schemization and WIT > 25 minutes) and secondly in achieving the Pentafecta. Finally, the presence of positive surgical margins in the two techniques was assessed and whether this could be correlated with a higher rate of local recurrence; Disease – Free Survival (DFS) and Cancer – Specific Survival (CSS) were also considered.

Materials and Methods

Patients who underwent NSS from January 2013 to December 2020 were retrospectively studied and divided into LPN and OPN cohorts. For the first objective, patients who had preoperative imaging (137 subjects) were included. After excluding any confounding factors (sex, BMI, age at surgery), the following were therefore evaluated: stratified PADUA and RENAL scores, size, ischemia, WIT > 25 minutes, achievement of Trifecta. In the 55 patients with adequate follow-up, the achievement of Pentafecta was evaluated. Finally, of 136 patients were described: state of surgical margins (PSM or NSM); recurrence rate with PSM, NSM and any margin; CSS with PSM and NSM; DFS with PSM and NSM. It was evaluated whether there could be a correlation between positive margins, local recurrence rate, DFS and CSS.

Results

For the treatment of more complex (RENAL > 5 and PADUA > 7) and extended masses, the OPN technique (85.7%, 67.9% and 39,3 mm respectively) is preferred to LPN (56%, 41,3% and 30,1 mm), for better management of intraoperative complications. The LPN technique allows to perform more "clampless" interventions (ischemization in 29,4% vs. 46,4% OPN), but, when necessary, it results > 25 min in 46,9% (vs 23,1% OPN). In absolute terms, WIT is > 25 min in 13,7% of the LPN cohort and 10,7% of the OPN cohort. A RENAL score > 5 does not appear to be correlated with an increased use of ischemization. There were no significant differences in achieving either Trifecta (64,2% LPN vs. 60,7% OPN) or Pentafecta (31,8% LPN vs. 18,2% OPN). There was 18% PSM in both the LPN and OPN cohorts. A higher recurrence rate was observed with PSM (20% LPN vs. 75% OPN) compared to NSM (16% LPN vs. 26% OPN), but no significant difference between the two techniques. DFS was greater with NSM (800,9 days) than with PSM (262,2 days), while no difference was observed with regard to CSS.

Discussions

The increasingly frequent use of medical imaging today allows us to diagnose the majority of renal tumors at an early stage (T1) [1], for which the treatment of choice is Nephron Sparing surgery (NSS). This conservative approach, compared to radical surgery, allows us to preserve renal function as much as possible [2][3][4]. A good oncological outcome is evaluated with the achievement of Trifecta, while the achievement of Pentafecta indicates a good functional outcome [5]. While in a good number of patients satisfactory results are obtained from the point of view of oncological radicality, the same cannot be said for the preservation of renal function.

Conclusion

The equivalence between LPN and OPN techniques is confirmed as regards both a good surgical and functional outcome. The anatomical scores appear to be fundamental in order to guide the surgeon in the choice of the technique, with a preference of the OPN for the more complex masses. The LPN technique reduces the use of ischemization, which should be considered in patients with impaired renal function. There were no differences between the two techniques even with regard to the state of the surgical margins. However, a higher recurrence rate was observed in the case of positive margins, with a lower disease-free interval than in the case of negative margins. However, this does not seem to affect cancer-specific mortality, so a free margin appears to be desirable but not essential. Adequate post-surgical follow-up is sufficient to avoid a second intervention aimed at widening the resection margin.

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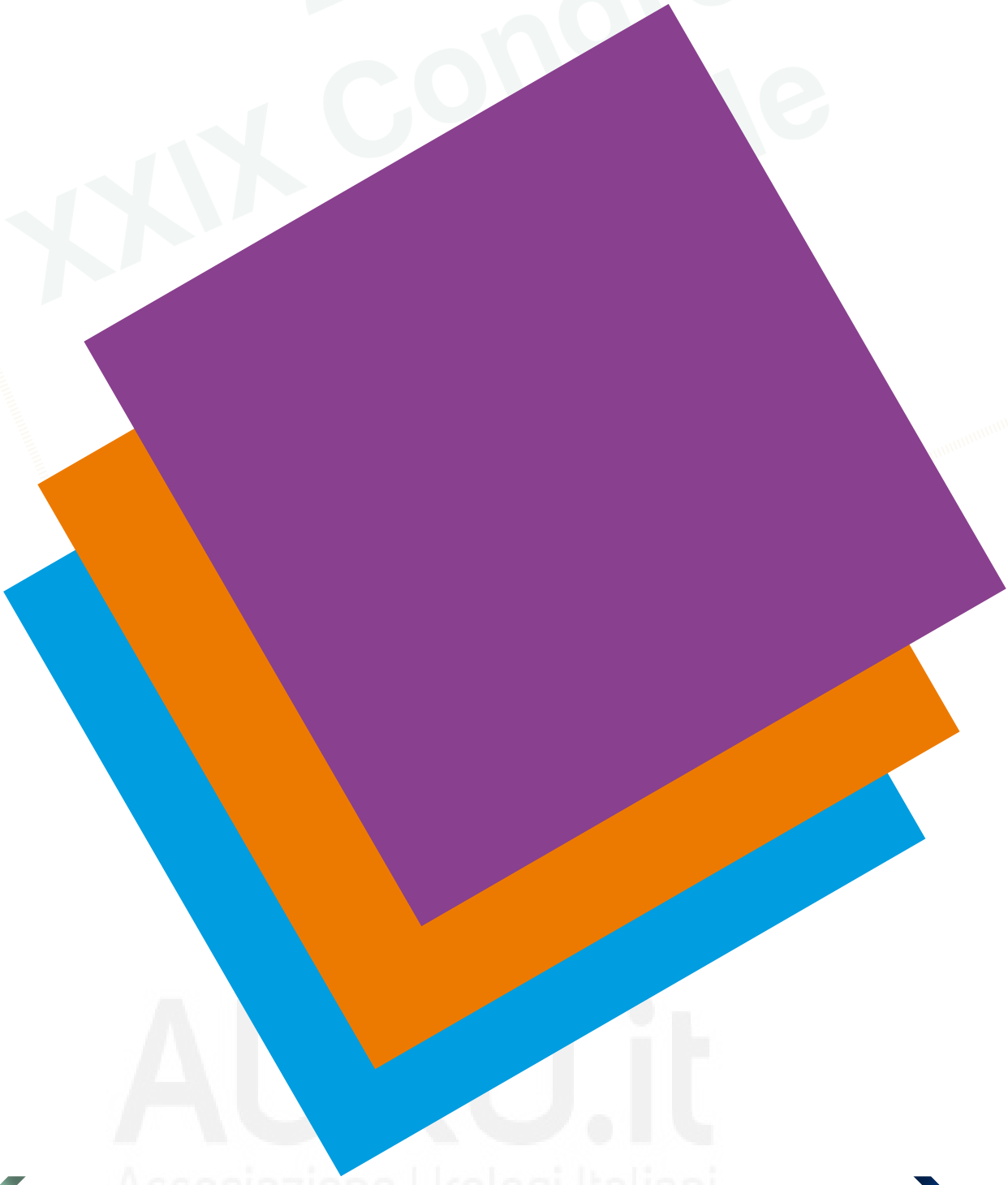

21 maggio 2022

10:00 - 11:00

sala A

Video 4-
Il Nuovo che avanza

Moderatori: Michele Amenta, Francesco Curto

1. #137: ROBOTIC RADICAL CYSTECTOMY WITH INTRACORPOREAL ILEAL CONDUIT: SURGICAL TECHNIQUE, PERIOPERATIVE, FUNCTIONAL AND ONCOLOGIC OUTCOMES

L. Misuraca[1], G. Tuderti[1], U. Anceschi[1], R. Mastroianni[1], A. Brassetti[1], M. Ferriero[1], A.M. Bove[1], S. Guagliano-ne[1], M. Gallucci[1], G. Simone[1]

[1] *IRCCS Regina Elena National Cancer Institute (Roma)*

Introduction & Objectives A recent comparison between open, semi-robotic and totally robotic cystectomy with ileal conduit (IC), demonstrated that robotic intracorporeal IC is a complex procedure with increased operation time, but lower estimated blood loss, transfusion rates, complications and hospital stays. Moving towards a minimally invasive approach for all kind of urinary diversions, we recently standardized our technique for intracorporeal IC. In this video, we describe our surgical technique, reporting perioperative, functional and oncologic outcomes.

Materials & Methods With patient in steep Trendelenburg position, 6-trocars access was used. Ureters were gently mobilized and isolated, avoiding tractions or manipulations. Distal ureters were clipped with hem-o-lok and a terminal specimen was sent for frozen section. Cystectomy with extended pelvic lymphadenectomy was completed, before transposing left ureter to the right side under the sigmoid mesentery. A 60 mm robotic stapler was used to configure the future IC and to perform a latero-lateral ileal-ileal anastomosis. Ureters were spatulated and, under ICG guidance to check ureters vascularity, a typical Wallace I anastomosis was performed. Two single J stents were positioned through a 5 mm trocar. The proximal end of the IC was opened and the posterior aspect of the uretero-ileal anastomosis was performed with a 3/0 monocryl running suture. The distal end of the IC was exteriorized by a Rampley forceps, together with the two single J stents. The anterior aspect of the uretero-ileal anastomosis was completed and a water tightness test was performed to prove the sealing of the suture. In this phase, camera port and right robotic arm were repositioned, in order to have a better visualization and an improved freedom of movements. Finally, peritoneum defect was closed in order to leave the IC in the retroperitoneum space.

Results Overall, 61 patients with a median of 69 yr were treated. 36 patients had cT3 disease, 11 had evidence of lymphadenopathy and 2 had suspicious metastasis at preoperative imaging. Median operative time was 290 minutes. LOS was 9 days. Only 16.4% of patients required transfusion. 39.3% of patients experienced a perioperative complications of any grade, while severe complications (CD grade ≥3) occurred in only 2 patients. Overall, 50.8% of patients had a pT>2, while PSM were reported in

1.6% of patients. At a median follow up time of 23 months, we registered a median last creatinine of 1.33 mg/dL. Only 5 patients developed a grade 2 or 3 hydronephrosis, which required nephrostomy placement in 3 cases. 3-yr OS, DFS and MFS were 52.9, 43.9 and 47.6%, respectively.

Conclusions Robotic radical cystectomy with intracorporeal IC is a safe and feasible procedure, with minimized blood loss, improved convalescence and reduced complications rate in tertiary referral centers.

2. #141: AN EASY WAY TO APPROACH A COMPLEX PROCEDURE: THE VESUVIAN ORTHOTOPIC NEOBLADDER

D. Del Biondo[1], G. Napodano[1], F.. Di Giacomo[2], D.. Di Domenico[3], B. Feleppa[1], Y. Sertac[4], A.R. Zito[1]

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[2] *IRCCS – CROB (Rionero in Vulture)*

[3] *Ospedale Sacro Cuore di Gesù - Fatebenefratelli (Benevento)*

[4] *Hacettepe University School of Medicine (Ankara)*

We developed a new surgical technique for the construction of an orthotopic ileal bladder which we called Vesuvian Orthotopic Neobladder (VON). At first we realize it in open surgery: we used 36 cm of ileum with which we obtained a neobladder with 3 symmetrical horns with the only use of a mechanical stapler for a geometrically estimated volume of about 320cc. Finally we realized the same configuration with totally intracorporeal robotic technique using the 60 mm staplers of the da Vinci System. The neobladder configuration takes shape through these following steps: selection of the intestinal loop, isolation of the loop and lateral-lateral anastomosis of the ileum with 2 mechanical staplers of 60/80 mm; we make the caudal and then left horns by introducing a 60mm stapler; the afferent and efferent stumps are sutured together with a 60mm mechanical stapler forming the right lateral horn; we thus obtain a clover structure with three symmetrical horns; the ureters are cannulated with 8fr ureteral catheters. The ureters are placed homolaterally to the horns and the uretero-neovesical anastomosis is performed in detached 3-0 monofilament stitches; the anastomosis with the urethra is packaged with five detached 2-0 monofilament stitches at the apex of the caudal horn. Thus ends the packaging of the Vesuvian Orthotopic Neobladder (VON).

3. #179: RISPARMIO DELL'URETRA E DEL COLLO VESCICALE DURANTE PROSTATECTOMIA RADICALE LAPAROSCOPICA CON L'UTILIZZO DEL VERDE DI INDOCIANINA

P. Tuzzolo[1], F. Esperto[1], F. Prata[1], A. Civitella[1], V.G. Crimi[1], S. Basile[1], N. Deanesi[1], R.M. Scarpa[1], R. Papalia[1]

[1] *Università Campus Bio-Medico (Roma)*

Nel video mostriamo una nuova tecnica per la visualizzazione ed il risparmio dell'uretra e del collo vescicale durante prostatectomia radicale laparoscopica con l'utilizzo del verde di indocianina (ICG). Prima del posizionamento dei trocar laparoscopici, per via trans-rettale sotto guida ecografica, abbiamo iniettato 25 mg di ICG diluiti a 20 ml con soluzione fisiologica sterile (NaCl 0.9%). Per ogni lobo, dalla base all'apice della prostata, sono stati iniettati 10 ml della soluzione così ottenuta. Siamo soliti eseguire la prostatectomia radicale laparoscopica con il Ligasure. Una volta sviluppato lo spazio pre-vescicale di Retzius ed eseguito il de-fatting, con l'ausilio delle forbici monopolari, eseguiamo un'incisione fra la prostata ed il collo vescicale fino a visualizzare l'uretra. In questo caso, grazie all'ICG, abbiamo ottenuto una miglior visualizzazione del limite prostatico, prima, e dell'uretra e del collo vescicale successivamente, potendo eseguire un risparmio di tali strutture. L'anastomosi vescico-uretrale è stata eseguita con due suture semicontinue Monocryl 0. Il tempo operatorio è stato di 70 minuti. Il paziente è stato dimesso in seconda giornata post-operatoria. In undicesima giornata post-operatoria è stato rimosso il catetere vescicale. Il paziente è risultato perfettamente continente a 3 mesi dall'intervento chirurgico. Ultimo PSA <0.02 ng/mL.

4. #192: ICG-GUIDED ROBOT-ASSISTED VIDEO-ENDOSCOPIC RADICAL INGUINAL LYMPHADENECTOMY FOR PENILE CANCER

A. Brassetti[1], A. Bove[1], U. Anceschi[1], M. Ferriero[1], S. Guaglianone[1], R. Mastroianni[1], L. Misuraca[1], G. Tuderti[1], G. Simone[1]

[1] *IRCCS Regina Elena National Cancer Institute (Roma)*

Background: Inguinal lymphadenectomy (ILND) is the standard of care for patients with invasive squamous cell carcinoma (SCC) of the penis, dictating prognosis, adjuvant therapies, and surveillance strategies. Surprisingly, it remains underutilized,

mainly due to the morbidity associated with the open approach. The robot-assisted approach has been recently introduced to help mitigate wound-related complications but its capability to provide an adequate lymph nodes (LNs) yield has been disputed.

Matherials and methods: we present the case of a 73 years old men presented with a cT3 tumor of the gland and palpable LNs treated with indocyanine-green (ICG)-guided bilateral robot-assisted video-endoscopic inguinal lymphadenectomy (RAVEIL). The patient was placed in a low lithotomy position, 20 degrees Trendelemburg, with the abduction of the lower limbs. The surgical fields, corresponding to the Scarpa Triangles, were marked and the approximate location of the femoral vessels highlighted. A small incision was created at the caudal edge of each triangle and a subcutaneous working space was created with the fingertip, below the Camper's Fascia. One single 12 mm laparoscopic trocar and 3 robotic ports were placed . The already available working space above the Fascia Lata (FL) was enlarged. In order to perform a radical lymphadenectomy, the FL was incised and the underlying space developed. All the tissue covering the pectineus muscle was progressively removed. The sapheno-femoral junction was located and dissected to identify that the Great Saphenous Vein (GSV) and femoral vessels. The deep inguinal LNs were dissected and excised from the femoral vein.The superficial inguinal LNs, located around the GSV, were excised until the bare Camper's Fascia was left. The ICG was injected in the penile tumor and the FireFly camera mode was used to access the femoral sheath, identify the femoral canal and remove the Cloquet node and the surrounding lymphatic tissue.

Results: operation time was 305 minutes, considering partial penectomy and radical RAVEIL. The patient was discharged on post-operative day (POD) 2 and the inguinal drains on POD 22. No intra- or postoperative complications were observed. At final pathology, a pT3N0 (0/28) squamous cell carcinoma of the penis was diagnosed. At 13 months follow-up, the patient was recurrence-free.

Conclusions: RAVEIL is safe and effective also when a radical ILND is required and surgical morbidity is negligible. An ICG-guided approach could enhance the identification of the tumor-draining nodes and improve LNs yield. Its impact on oncologic outcomes should be assessed in large series.

5. #191: ROBOT-ASSISTED VIDEO-ENDOSCOPIC RADICAL INGUINAL LYMPHADENECTOMY FOR PENILE CANCER: SURGICAL ANATOMY AND TECHNIQUE

A. Brassetti[1], A. Bove[1], U. Anceschi[1], M. Ferriero[1], S. Guaglianone[1], R. Mastroianni[1], L. Misuraca[1], G. Tuderti[1], G. Simone[1]

[1] *IRCCS Regina Elena National Cancer Institute (Roma)*

Background: Inguinal lymphadenectomy (ILND) is the standard of care for patients with invasive squamous cell carcinoma (SCC) of the penis but it is still often omitted due to the morbidity associated with open surgery. To help mitigate wound-related complications, a minimally invasive (MI) approach was proposed in 2003 but its spread was probably hampered by the lack of confindence of the urologists with the endoscopic anatomy of the groin.

Matherials and methods: we describe the pivotal points of surgical anatomy of the groin and present our technique for a robot-assisted approach to radical ILND.
We also report outcomes of our multicenter database on ILND for penile cancer.

Results: overall, 257 patients were included in the study and 233 required an ILND, which was performed with a MI approach in 22 cases. Among these, 6 (27%) were robot-assisted. A partial or radical penectomy was also performed in 7 (32%) and 3 (14%) cases, respectively. Median operation time was 300 min (IQR: 285-325), mainly for ILND (225 min; IQR: 200-240). One single intraoperative complication was recorded, which required conversion to open surgery. Median lengh of stay was 6 days and inguinal drains were removed on post-operative day 29 (IQR: 22-36). Major post-operative complications were observed in 4 patients (18%).

Conclusions: the surgical anatomy of the groin learnth in open surgery is usefull when a minimally invasive approach is preferred. Video-endoscopic ILND is safe and effective, though dramatically underutilized also in referral centers.

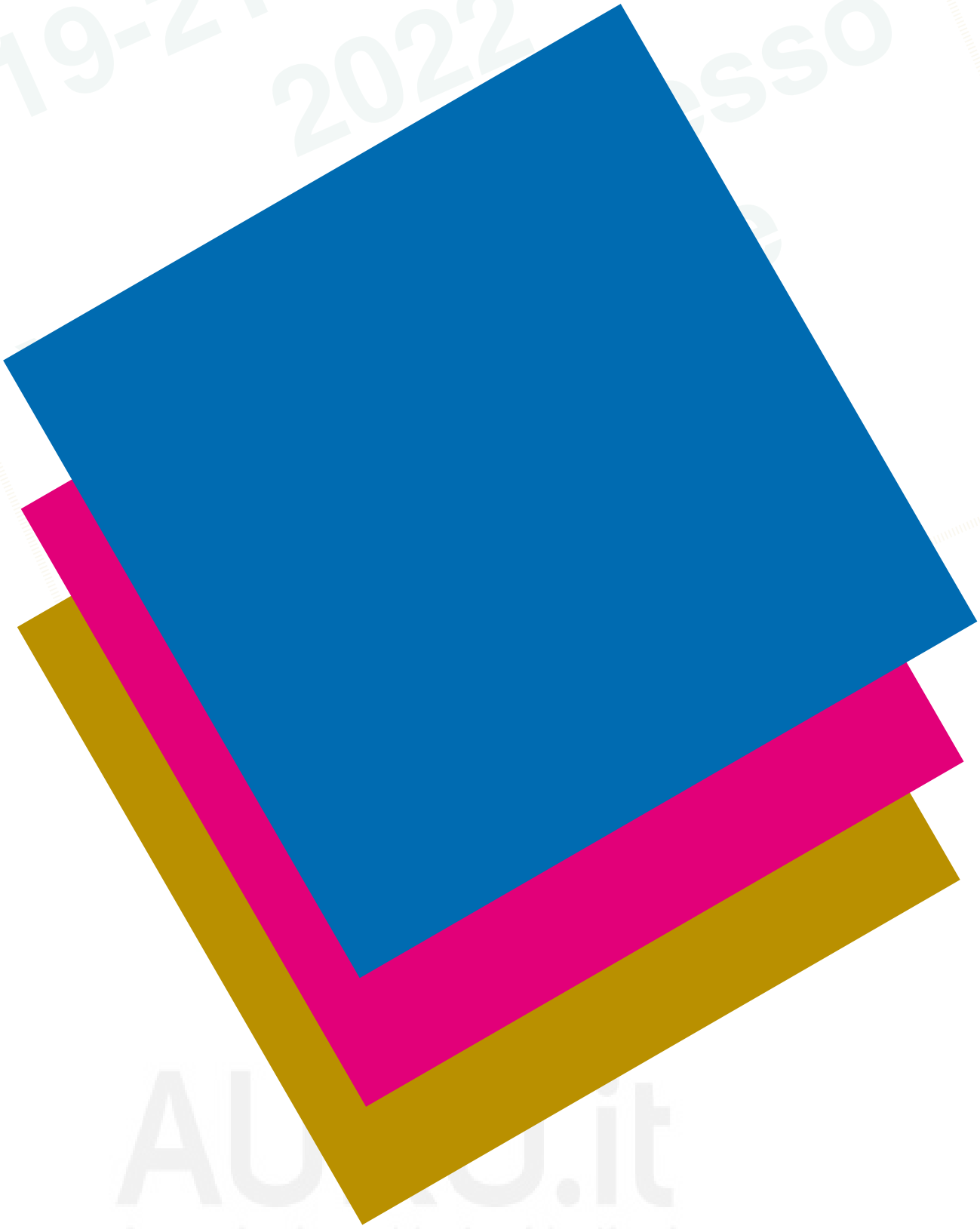
6. #181: LINFOADENECTOMIA PELVICA CON IL VERDE DI INDOCIANINA (ICG) IN CORSO DI PROSTATECTOMIA RADICALE LAPAROSCOPICA

A. Civitella[1], F. Esperto[1], F. Prata[1], P. Tuzzolo[1], P. Callè[1], V.G. Crimi[1], L. Cacciatore[1], R.M. Scarpa[1], R. Papalia[1]

[1] *Università Campus Bio-Medico (Roma)*

Da Aprile 2021 ad Ottobre 2021, abbiamo eseguito presso il nostro centro 20 linfoadenectomie pelviche con l'utilizzo del verde di indocianina (ICG) in corso di prostatectomia radicale laparoscopica (LARP), in pazienti con ISUP grade di almeno 3 e nomo-

gramma di Briganti con punteggio >5%. La procedura è stata eseguita iniettando, per via trans-rettale sotto guida ecografica, 25 mg di ICG diluiti con 20 ml di soluzione fisiologica (10 ml per ogni lobo prostatico). Nel nostro centro la media di linfonodi evidenziati all'esame istologico, dopo linfoadenectomia pelvica per carcinoma prostatico, è di 16,8 linfonodi (SD = 3,08). Utilizzando l'ICG in corso di LARP, il numero medio di linfonodi è stato di 19,25 (SD=4,49) con p=0,01426 al test U di Mann-Whitney. Non sono stati evidenziati eventi avversi intraoperatori o correlati all'iniezione di ICG, né casi di linfocele o linforrea. In base alla nostra esperienza, il sistema di imaging con ICG risulta semplice, sicuro ed utile per migliorare l'identificazione del tessuto linfatico. Inoltre, l'ICG ha incrementato il numero di linfonodi evidenziati all'esame istologico definitivo. Studi prospettici con campioni di maggiori dimensioni sono necessari per confermare il ruolo dell'ICG nella linfoadenectomia pelvica in corso di LARP.



21 maggio 2022

10:00 - 11:00

sala B

Comunicazioni 6- Nuove Frontiere nel Trattamento dell' I.P.B.

Moderatori: Franco Bertolotto, Giovanni Di Lauro

1. #105: "IL SEGRETO DI PULCINELLA". LA TOSSINA BOTULINICA NEL TRATTAMENTO DELLA VESCICA IPERATTIVA REFRATTARIA ALLA DISOSTRUZIONE IN MASCHI ADULTI

G. Di Paola[1], F.A. Mantovani[1], V.. Inneo[1], A.L. Meazza[1], G. Chiarelli[1], M. Seveso[1]

[1] *Istituto Clinico Città Studi (Milano)*

Objective

I disturbi urinari secondari all'ostruzione delle basse vie urinarie si associano spesso ad una sintomatologia riconducibile alla sindrome della vescica iperattiva. (1) Il trattamento più efficace per migliorare i sintomi è rappresentato dalla disostruzione cervico-uretrale ma in un'alta percentuale di pazienti permangono sintomi della fase di riempimento vescicale. (2) L'obiettivo di questo studio è la valutazione dell'efficacia delle iniezioni intradetrusoriali di tossina botulinica in termini di miglioramento dei sintomi urinari, qualità di vita, utilizzo di presidi per l'incontinenza urinaria ed utilizzo di anticolinergici in pazienti sottoposti ad intervento disostruttivo cervico-uretrale con persistenza di sintomi della fase di riempimento vescicale.

Materials and Methods

Dal settembre 2017 al settembre 2021, abbiamo sottoposto, presso il nostro Istituto, a disostruzione cervico-uretrale (vaporesezioni prostatiche transuretrali con laser al Tullio-THUVARP), 247 pazienti di età superiore o uguale a 50 anni. Escludendo i pazienti con patologie neurologiche concomitanti o con diabete mellito, 37 pazienti manifestavano a tre mesi dall'intervento sintomi della fase di riempimento vescicale. I 37 pazienti (età media di 66 anni), valutati a tre mesi dalla THUVARP, presentavano urinocolture negative, citologie urinarie negative, frequenza minzionale maggiore o uguale a 8 volte nelle ore diurne, urgenza minzionale, urge-incontinence, qualità della vita compromessa (domanda 8 del questionario IPSS), non completa responsività a farmaci anticolinergici, iperattività detrusoriale senza ostruzione residua o residuo vescicale post-minzionale valutate mediante studio pressione / flusso. Tali pazienti sono quindi stati sottoposti ad iniezioni intradetrusoriali di tossina botulinica A (Botox) 100 UI (20 iniezioni da 0.5 ml 5 UI con risparmio del trigono) in cistoscopia rigida. La procedura è stata eseguita in sedo-analgesia in regime ambulatoriale. I pazienti sono stati quindi rivalutati a tre e sei mesi dalla procedura dopo compilazione del diario minzionale, somministrazione del questionario IPSS-QoL ed esecuzione di uroflussometria con valutazione del residuo vescicale post-minzionale. Endpoint primario è stato il cambiamento del numero medio di minzioni delle 24 ore. Endpoint secondari

comprendevano variazioni del volume urinario per minzione, numero di episodi di incontinenza urinaria, uso di anticolinergici ed utilizzo presidi per l'incontinenza urinaria.

Results

La durata media della procedura è stata di 12 minuti. Non sono stati registrati eventi avversi sistemici, mentre 12 pazienti hanno riportato effetti collaterali autolimitentesi correlati alla procedura: 4 ematurie non significative, 7 strangurie ed 1 ritenzione urinaria che ha richiesto una cateterizzazione transitoria. E' stata osservata una riduzione statisticamente significativa dell'IPSS score dopo tre mesi di follow-up da 22.4 a 7.6 ($p<0.0001$) e dopo sei mesi a 8.3 ($p<0.0001$).
Il residuo post-minzionale ed il valore di flusso massimo non hanno subito variazioni significative.
Il trattamento ha determinato un miglioramento statisticamente significativo della frequenza minzionale (riduzione di tre atti minzionali / 24 ore). Il volume medio svuotato per minzione è aumentato in media di 60 ml, gli episodi di incontinenza da urgenza si sono risolti in 21 pazienti e ridotti in 10 pazienti. Prima della procedura, tutti i pazienti utilizzavano almeno un pad die, mentre a tre e sei mesi dalla procedura, utilizzavano solo 1 pad die solo 10 pazienti. Prima della procedura, tutti i pazienti utilizzavano un anticolinergico; a tre e sei mesi, solo 10 pazienti utilizzavano un anticolinergico (5 fesoterodina 4 mg, 4 trospium 60 mg RM, 1 solifenacina 5 mg).

Discussions

I sintomi della fase di riempimento vescicali tendono ad essere persistenti dopo intervento disostruttivo rispetto a quelli di svuotamento nel 40% circa dei pazienti, compromettendo significativamente la qualità di vita. (3) (4) Vari studi raccomandano l'utilizzo di anticolinergici ma a volte non sono sufficienti nel controllo dei sintomi, sono poco economici, possono determinare effetti cumulatici (carico anticolinergico) in pazienti anziani in terapia con altri farmaci ad azione anticolinergica, inoltre studi associano carico anticolinergico e demenza, fino ad una correlazione tra questo ed aumento di mortalità. (5) Una validissima alternativa alla terapia farmacologica, è rappresentata dalle iniezioni intradetrusoriali di tossina botulinica A che si dimostra ben tollerata, semplice e con pochi o nessun effetto avverso significativo. (5) (6)

Conclusion

Dalla nostra esperienza di singolo Centro abbiamo evidenziato come il trattamento con tossina botulinica A intradetrusoriale rappresenti un trattamento economico per i pazienti, facile, ripetibile, senza significative complicanze e soprattutto determini un notevole miglioramento dei sintomi della fase di riempimento vescicale persistenti in pazienti sottoposti ad intervento disostruttivo cervico-uretrale per ipertrofia prostatica, con significativo vantaggio sulla qualità di vita dei pazienti.

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2. #77: PROSTATIC ARTERY EMBOLIZATION IN HIGH-RISK PATIENTS WITH INDWELLING BLADDER CATHETER

D. Campobasso[1], G. Guarino[1], R. Ferrari[2], I. Paladini[3], A. Andreone[3], M. Favali[4], A. Zagnoli[4], S. Ferretti[1], G. Di Chiacchio[4], F. Ziglioli[1], M.C. Sighinolfi[2], L. Cindolo[5], S. Micali[2], U.V. Maestroni[1]

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Objective

Incidence of lower urinary tract symptoms (LUTS) due to benign prostatic obstruction (BPO) correlates with age, the overall prevalence in men aged 40 to 80 years being estimated as 33% in the USA [1]. With the increase in global life expectancy in recent decades, a growing number of elderly patients present with these conditions. Urinary retention (UR) correlates with BPO and is associated with a decline of overall quality of life and an increased morbidity (urinary tract infection, hematuria). In the last years prostate artery embolization (PAE) has been developed as a minimally invasive procedure to treat BPO-related LUTS [2]. We evaluated the safety and efficacy of prostatic artery embolization in the management of UR secondary to BPO in elderly and unfit patients for surgery.

Materials and Methods

We retrospectively reviewed all the patients with indwelling bladder catheter secondary to BPO and unfit for surgery due to

comorbidities who underwent prostatic artery embolization in the university hospital of Parma and in the university hospital of Modena. Considered pre-operative data were: age, Charlson comorbidity index (CCI), prostate volume and indwelling urethral catheter time. The aim of the procedure was to remove bladder catheter and maintain the patients free from urinary catheter. We recorded hospital stay and early and late complications.

Results

A total of twenty-three high risk patients with bladder catheter undergone PAE were considered. The median age, CCI and prostate volume were 80 years (IQR 75-83), 4 (IQR 4-6) and 80 ml (IQR 60-149), respectively. No PAE failure occurred for tortuosity and atherosclerotic vessels in our series. In 60.8% of cases the history of indwelling bladder catheter was >6 months. The mean hospital stay was 4 days (range 1-14). One patient who developed post embolization partial penile necrosis, which it was managed conservatively (Clavien II), required prolonged hospital stay (14 days). The other complication reported was post-treatment fever in one patient (Clavien I). No other early or late complications occurred. At the last follow-up evaluation, 13 patients (56.5%) were catheter free. In the failure group, 8 (80%) patients had at least two out of these three risk factors for bladder catheter removal failure: prostate volume >100 ml, age >80 years and a history of indwelling bladder catheter >6 months versus 38% of patients free from catheter after the procedure.

Discussions

PAE is one of the most recent minimally invasive surgical treatments (MISTs) for BPO developed in the last years. The procedure did not required anesthesia and dedicated instruments. Several retrospective series and randomized controlled trials (RCT) have demonstrated the efficacy and safety, even if is less effective than TURP [3]. The selection of LUTS patients who will benefit from PAE still needs to be better defined. Due to the safety profile, elderly and fragile patients should be considered for PAE. Our success rate of 56.5% is less than 80.6% reported by Leng [4]. However, if we considered only patients unfit for surgery, our results are in line with the 45.4% [5] and 60% [6] of successful catheter removal reported in the literature.

Conclusion

In our experience, PAE is a safe alternative treatment for BPO in high-risk patients with indwelling bladder catheter. Patient's selection and counseling is crucial for an effective outcome.

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3. #152: EJACULATION SPARING THULIUM LASER ENUCLEATION OF THE PROSTATE: A OBSERVATIONAL PROSPECTIVE STUDY

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Objective

Benign prostatic hypertrophy (BPH) is a condition that appears with advancing age and affects 1/3 of men over the age of 50. It can result in both filling and emptying symptoms. In 15% of cases, the severity of the resulting obstructive uropathy symptoms is such that surgery is required. The main limitation of endoscopic techniques for BPH is the occurrence of retrograde ejaculation that is not always well accepted by patients.The purpose of this study is to evaluate the efficacy and of Ejaculation Sparing Thulium Laser Enucleation of the Prostate (ES – ThuLEP) in both the treatment of LUTS and the preservation of ejaculation and erection

Materials and Methods

his was a prospective observational study performed between January 2018 and September 2020. We enrolled patients with BPH who wished to maintain ejaculation. Patients were followed – up at 3 months, 6 months and 1 year after surgery. all patients were collected personal and pharmacological history, standardized questionnaires International Index of erectile Function short form (IIEF – 5), nternational Consultation on Incontinence Questionnaire Male Sexual Matters Associated with Lower Urinary Tract Symptoms Module (ICIQ – MLUTS sex) and International Prostatic Symptom Score (IPSS) were administered. In addition, all patients were performed uroflowmetry with assessment of post void residual volume. Patients with a desire to produce offspring,

patients with IIEF < 16; patients with diabetes or patients diagnosed with psychiatric pathology; patients with prostate volume >250gr or patients with IPSS score <7 were excluded. ll ES-ThuLEP procedures were performed by one sureon using Quanta System) A maximum power of 120 W was set for cutting and 35 W for coagulation were used.

Results

we enrolled 110 patients. Six patients did not perform follow – up controls and therefore 104 patients were ultimately analyzed. We found a statistically significant improvement in the IPSS score at 3 months, 6 months and 1 year after surgery (26±6.7 Vs 7.4±3.7 (p<0.05) Vs 5.8±6.7 (p<0.05) Vs 6.9±3.5 (p<0.05)). We also found a statistically significant improvement in maximum flow (Qmax) in all controls performed (Qmax 6. 2±2.4 Vs 17.3±2.1 Vs 18.1±1.3 (P<0.05) Vs 19.1±3.2 (p<0.05). also the post micturition residual (PVR) statistically significantly improved up to one year after surgery (PVR 78±14.2 ml Vs 18±8.4 ml (p<0.05). We did not find statistically significant differences in IIEF 5 score both before and after surgery at 3cmesi, 6 months and 1 year after surgery (IIEF 5 score: 21.2± 2.3 Vs 20.9±1.8 (p>0.05) Vs 20.7±3.1 (p>0.05) Vs 21.5±1.8 (p>0.05). Analyzing the ICIQ-mLUTSsex data, it was found that 88.4% of patients (92 pts) had maintained ejaculation at 3 months, 84.6% of patients (88pts) had maintained ejaculation at 6 months, and 81.7% of patients had maintained ejaculation at 1 year.

Discussions

Reduced sexual satisfaction, due to the loss of ejaculation, delays treatment, causing worsening of symptoms and damage to the detrusor muscle of the bladder. Therefore, an ES approach would be the ideal option, especially for young and sexually active men.

4. #148: DOES HOLMIUM LASER ENUCLEATION OF THE PROSTATE (HOLEP) HAVE ALREADY A COMPLEX LEARNING CURVE? A SINGLE-CENTER EXPERIENCE

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Objective

In the last years, many studies demonstrated that HoLEP had several advantages for the surgical treatment of benign prostate hyperplasia (BPH), if compared with Open Simple Prostatectomy (OP) and transurethral resection of the prostate (TURP). On the other hand, the main limitation to the widespread of this technique is its steep learning curve. The aim of our study is to evaluate the learning curve of HoLEP in our center.

Materials and Methods

We retrospectively analyzed the data of our first 60 patients who had LUTS resistant to medical treatment and complicated BPH whose underwent HoLEP in our department from June 2019 to October 2021. All procedures were performed by a single surgeon, who had great experience in endoscopic and laparoscopic surgery. To evaluate the learning curve, we divided the patients into 2 main groups of 30 consecutively operated patients beginning from the first case (group A and Group B, respectively).

Results

Mean age of the 60 patients was 65.6 years. Mean prostate size was 91.2 ml (54-310 ml). We found that mean Enucleation time was 0.62 g/min (0.35-0.91 g/min) and 0.91 g/min (0.69-1.11 g/min), while morcellation efficiency was 2.74 g/min (2.34-3.89 g/min) and 4.11 g/min (3.75-4.36 g/min) for Group A and B, respectively. The difference was statistically significant between the 2 Groups ($p < 0.05$). Analyzing Clavien grade 1 and 2 complications, we described 6 cases (20%) in group A and 1 cases (3.3%) in group B. Capsular perforation and superficial bladder mucosal injury were the most common complications. Analyzing Clavien grade 3 and 4 complications, we reported 3 cases (10%) in Group A and 1 cases (3.3%) in Group B. Leaving the case into a second-step procedure was reported in 1 patient (3.3%) in group A and in 1 patient (3.3%) in Group B, respectively. Conversion to bipolar TURP was seen in 2 cases (6.7%) of Group A, while conversion to OP in 1 case (3.3 %) of group A ($p < 0.05$ for all comparisons).

Discussions

According to European Association of Urology Guidelines, the gold standards for the surgical treatment of BPH are OP and TURP, depending on prostate volume (1). In the last decades several studies demonstrated that HoLEP, compared with TURP and OP, has more efficiency and reduces bleeding and morbidities. However, it is still considered as an alternative to TURP and OP because of its prolonged learning curve (2). According to our experience, we found that enucleation and morcellation time significantly improved after 25-30 cases. Our data are consistent with other studies. Kim et al. showed that the enucleation efficacy continued to improve after 30 patients and became stable between 60th and 70th cases (3). Brunckhurst et al. reported that morcellation efficiency increased after 40-60 cases (4). Furthermore, the learning curve can also influence perioperative outcomes. In our study, Group B showed a significantly reduction of the complications. Gürlen et al. reported that complication rates were very low and stable between 50 th and 75 th cases, while Grade 3, 4 and 5 complications were not seen between 75 th and 100 th cases (5). These data supported the intuitive consideration that the maturation of the surgeon's skill improved both intra- and peri-operative outcomes. The conversion to TURP and OP were due to the loss of the correct anato-

mical plane or to the high volume of the prostate. Our study also has some limitations. The retrospective nature and the small sample size limit the generalizability of the results. Moreover, our data reflect the experience of a single surgeon. Furthermore, we did not consider overall clinical parameters and postoperative results, which could be the aim of further studies. Despite HoLEP learning curve is complex and the real individual plateau of expertise is difficult to estimate, we believe that gradual improvement can be obtained as surgical volume increases.

Conclusion

Our data demonstrated that HoLEP has a long learning curve, even for an experienced endoscopist. We believe that is necessary to reach the number of 25-30 cases to master this technique.

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5. #159: COMPARATIVE STUDY BETWEEN TULLIUM LASER VAPORIZATION (TM:YAG) 150W AND GREEN LIGHT LASER (LBO:ND-YAG) 120W FOR THE TREATMENT OF BENIGN PROSTATIC HYPERPLASIA: SHORT-TERM EFFICACY AND SAFETY

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Objective

The objective was to compare the results in terms of efficacy and safety (intra- and post-operative) of the Thulium 150W laser with the Greenlight 120W laser in the treatment of benign prostatic hyperplasia in the short term period.

Materials and Methods

This is a retrospective observational study conducted in the last two years in our center in which men who underwent a surgical technique of laser prostate vaporization were included.
Postoperative complications such as massive hematuria, acute urinary retention, reentry, need for transfusion were evaluated. The efficacy of the endoscopic surgical treatment was assessed in terms of peak flow >15 ml/sec, no need for reintervention and improvement in I-PSS at one year after surgery and the reduction of PSA one year after surgery was evaluated. A bivariate analysis was performed using Chi-square and t-Student.

Results

Sixty patients were treated with tullium and 64 with green laser. The sample was homogeneous for preoperative variables (P>.05). No differences were observed in complications: in urine acute retention, 3.3% with thulium and 4.8% with green laser (P=.41); in readmissions, 2.2% with thulium and 1.4% with green laser (P=.68); need for transfusion, 0.6% with thulium and 0% with green laser (P=.12). No difference was observed in the reintervention rate of patients (1.7% in the thulium group, 5.1% in green laser, P=.28); or in subjects with Qmáx less than 15 ml/sec (5.12% with thulium, 5.01% with green laser, P=.75), or in the absence of IPSS improvement (5.5% with thulium, 3.6% with green laser , P=.65). There was also no difference in PSA levels in ng/mL 1 year after surgery: with thulium 2.9±2.2 and with green laser 1.97±1.55 (P=0.75).

Conclusion

Vaporization of the prostate with the 150 W thulium laser is comparable to that performed with the 120 W green laser for the treatment of lower urinary tract symptoms caused by BPH, being an effective and safe technique for up to 12 months after surgery. Future prospective randomized trials are needed to confirm this finding on both techniques.

6. #187: ENDOSCOPIC THULIUM LASER TREATMENT OF THE PROSTATE: AN INITIAL SERIES BY A SINGLE SURGEON

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Objective

Endoscopic treatment of bladder outlet obstruction (BOO) due to prostatic enlargement (BPH) by means of thulium laser is constantly evolving. Different applications, ranging from vaporisation (THUVAP), vaporesection (THUVARP), and enucleation (THULEP) are possible, showing a favorable safety profile. Amongst them, THULEP represents the most comprehensive option, due to its potentially main advantages in comparison to transurethral resection of the prostate (TURP): virtually size-independent procedure – low bleeding risk – short catheterization time. Herein presented is a single center-single surgeon series of initial experience with partially selected cases treated with thulium laser.

Materials and Methods

Between December 2017 and November 2021 225 patients were treated with thulium laser due to benign prostatic obstruction (BPO), by a single surgeon (MS) at our institution. We used a RevoLix DUO laser device, which consists of a Thulium continuous wave laser with the wavelength of 2 μm (2.013 nm ±10 nm), emitting the laser radiation continuously (continuous wave). Patient inclusion criteria, after failure of medical therapy, were: maximum urinary flow rate (Qmax) <15 ml/s, International Prostate Symptoms Score (IPSS) >19 or acute urinary retention (after at least one unsuccessful attempt of removal). Patients were evaluated by: prostate specific antigen (PSA), ultrasonography and/or mpMRI (in case of elevated PSA), digital rectal examination, uroflowmetry, IPSS. Subsequently, 181 patients were allocated to be treated by THULEP. Other procedures performed were: THULEP ML (median lobe only, 31 cases), THUIP (laser incision, 10), THUVARP (3). Patients characteristics (median): age 70,5 – PSA 3,93 – prostate volume 86 mL – ASA II 105 – ASA III 76 – patients on antiplatelet/anticoagulant drugs: 125/181 (69%) – catheterized 34. Power setting: for cases 1 to 40 (dec 2018) power was 110 W; afterwards we reduced to 90 W.

Results

Among all patients treated with thulium laser, herein reported are the results for the THULEP cohort. Median values of the post-operative parameters are: operation time: 110' – resection only time: 85' – hemoglobin drop: 1,1 g/dl – catheterization time: 60 (hours) – hospital stay: 68 (hours). Complications, according to Clavien-Dindo system, were as follows: GI: 8 (readmission due to hematuria 2 – fever 2 – abdominal pain 1 – transient urinary retention post catheter removal 2 – entrapped umbilical hernia 1) – GIIIa: 9 (acute post-operative bleeding requiring endoscopic coagulation 7 – inadvertent coagulation of an ureteral orifice, requiring stenting 2) – GIIIb: 2 (intrabdominal extravasation of fluid, requiring laparotomy). Pathology report was consistent with benign prostatic hyperplasia in all but one case (associated urothelial carcinoma); median weight of the resected tissue was 65 cc. All patients gained a meaningful improvement in micturition pattern, based on personal reports (IPSS score <7 in > 90%) and uroflowmetry values: Q max > 15 ml/sec – rpm unremarkable in 92% of patients. To date, one patient required secondary instrumentation due to short urethral stricture. In the first phase of the experience (about 18 months) a common complaint of many patients within the first two months after the procedure was some sort of urge incontinence; four patients experienced meaningful incontinence for up to six months. Morcellation was uneventful in all cases.

Discussions

After this initial experience we confirm previous reports about safety and efficacy in the treatment of BPO with thulium laser. Our results are also encouraging, although the learning curve reveals to be steep at first. Despite the same access, laser enucleation is quite different from traditional resection of the prostate: this requires the surgeon to start with small volumes of tissue to be removed. Gaining experience there is virtually no limit to the volume of the gland one can resect. Theoretically, every patient can be treated by laser surgery, but the most meaningful subset regards larger adenomas (in order to avoid open surgery) and patients under vasoactive drugs: in our experience no one required transfusions nor experienced significant hemoglobin drop. Hospital stay appears to be shorter than after conventional resection, either mono- o bi-polar. After reducing the power from 110 to 90 W post-operative irritative symptoms were greatly reduced. We registered some grade III complications: this can be explained with a perforation in the prostatic capsule, leading to transection of venous tributaries and/or to a progressive extravasation of fluid, which needs to be taken into account and stopped from the beginning. Moreover, some form of disruption of the capsule, mainly in close proximity of the sphincter, may lead to its postoperative inadequate competence, causing a persistent incontinence. With progressive experience, the surgeon should not only extend his/her ability to treat larger prostates, but also require less power, due to an improved capability to enter the correct plane between capsule and adenoma, which is the way to speed the procedure up with virtually no blood loss and -above all- the preservation of an intact sphincter. Continuous attention must be paid -mainly at the beginning- not the enter an incorrect plane, potentially leading to mucosal disruptions, especially at the bladder neck or in the trigonal area. Provided the above mentioned, THULEP appears to be a real effective method to relieve BOO: after an anatomical enucleation of the adenoma, a large cavity is created, with real few opportunities to end up in a cervical stenosis; to date, in our experience, no patient has required a repeat surgery for this reason.

Conclusion

Laser surgery is progressively standing out in the fast growing landscape of surgical procedures to treat BPO. Among them thulium technology is gaining popularity due to its easy of use and its versatility, directly depending on the possibility to employ the fiber as an endoscopic knife. The device can treat the prostate differently, but enucleation (THULEP) represents the more complete and elegant way to solve the problem. The procedure is not plain easy, definitely: the support of an experienced surgeon can surely make softer the path of a newcomer, to avoid unexpected and potentially serious complications. Caution must

be posed during the learning curve, avoiding to embark in the treatment of large adenomas before obtaining a good experience. Finally, this laser works with reusable fibers, which can help contain the costs of the procedure. No one can presently say if TURP is destined to vanish; probably this is not the case, but certainly more room is to be progressively yielded to laser treatments.

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7. #166: HYALURONIC ACID AND ADELMIDROL IN THE TREATMENT OF POST HOLEP IRRITATIVE SYMPTOMS

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Objective

Holmium laser enucleation of the prostate (HoLEP) is one of the most effective surgical modalities for BPH with many advantages over the historical gold standards open prostatectomy or transurethral resection of the prostate (TURP).
The efficacy of the treatment of symptoms related to BPH and the advantages related to laser technology in terms of good haemostasis, improving of urinary output and safety are well known. The most relevant side effects are represented by irritative disorders such as urgency, frequency, pain and post voiding dripping. To overcome these disorders, treatments with antimuscarinic and anti-inflammatory drugs or with "topical" intravesical drugs can reduce and improve the scenario, leaving time for normal tissue regeneration processes to act. We evaluated the efficacy of intravesical instillation of 0.1% sodium hyaluronate and 2% adelmidrol.

Materials and Methods

We reviewed retrospectively the data of 389 patients who underwent HoLEP for symptomatic BPH in our center between 2017 and 2021. Data of 18 patients who presented significant and persistent irritative disorders not responding to empiric antimuscarinic, anti-infiammatory and antibiotics treatment at 2 months from surgery were evaluated. Inclusion criteria for surgery were prostate size> 70 g evaluated with suprapubic ultrasound, Q Max <10 ml / sec, IPSS (0-35)> 19 and lack or poor response to alpha-lithic or intolerance at the same before being subjected to intervention. All patients received preoperative antibiotics prophylaxis or specific antibiotics therapy based on the results of positive urinary colture. HoLEP was performed with a three lobe technique by a single experienced surgeon. Clinical satisfaction of urinary output has been evaluated in all the case. All patients had negative urine culture before starting intravesical instillations. All patients received 6 instillations of hyaluronic acid once a week. All patients were re-evaluated at week 3 and week 6 during a follow-up visit with a post void residual (PVR) ultrasound assessment and a clinical evaluation. Side effects were reported in all the case.

Results

18 patients received 6 instillations of hyaluronic acid plus Adelmidrol once a week.
Urgency improves after 3 and 6 installations in 10 (55%) patients and 17 (94%)patients respectively. Pain symptom resolves in all the cases and in 12 (66%) patients post voiding dripping was still present after 6 instillation. Ultrasound PVR was regular in all the patients.
100% of the patients tolerated the treatment well. No urinary tract infection or acute urine retention were reported.

Discussions

HoLEP has been accepted as the most efficient method of transurethral surgery for benign prostatic hyperplasia.
Irritative symptoms after surgery represent in BPH laser surgery the main issue for minor complications. Surgeon experience and volume of procedures have been proven to reduce peri-operative complications. Adelmidrol is a member of the aliamide family, with similar anti-nociceptive and anti-inflammatory proprieties of PEA and as a PEA synthetic analogue, adelmidrol can increases endogenous levels of PEA(1). Recovering of the physiological level of PEA in the urothelium at the bladder neck and prostatic urethral enables the control of hyaluronic acid depolymerization from which it depends the ability of this polysaccharide to restore the urothelium coating integrity(2). Urothelium layer consists of glycosaminoglycans (GAGs): hyaluronic acid, chondroitin sulphate, heparan sulphate, and dermatan sulphate. GAGs coats the urothelium and damage of the GAGs layer allows the infiltration of urine with inflammatory action into the underlying layers and the consequent activation of mast cells (3) Mast cell hyper-activation can stimulate unmyelinated C fibers, leading to bladder pain. Hyaluronic acid (HA) is a mucopolysaccharide that promotes fibroblasts and endothelial cells proliferation enhancing the healing of tissues (4). HA therefore increases GAGs production, improves the permeability of the urothelium through the stimulation of the expression of tight junction proteins, decreases immune cell infiltration into the urothelium and then inhibits bladder mast cell activation (5). HA and adelmidrol determines a synergistic effect to restore the integrity of the urothelial tissue.

Conclusion

Intravesical instillations of hyalurinic acid and adelmidrol represent a good option for the treatment of post-HOLEP irritative disorders both in terms of therapeutic efficacy, tolerability and safety. Post voiding dripping represents the most difficult symptom to treat after HOLEP.

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8. #157: EFFECTS OF THE LASER SETTINGS ON PERI-OPERATIVE AND POST-OPERATIVE OUTCOMES IN PATIENTS WHO UNDERWENT TO HOLMIUM LASER ENUCLEATION OF THE PROSTATE (HOLEP). A SINGLE-CENTER EXPERIENCE

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Objective
Transurethral resection of the prostate (TURP) has been considered the gold standard in the treatment of benign prostatic hyperplasia (BPH) for the past 40 years. In the last decade, several authors demonstrated that HoLEP had several advantages. On the other hand, dysuria, frequency, sense of residual urine, sometimes accompanied by temporary overactive bladder were the most frequent postoperative symptoms. The aim of our study is to evaluate the effects of laser settings on peri-operative and post-operative outcomes.

Materials and Methods
We analyzed the data of 61 patients with BPH and LUTS resistant to medical treatment whose underwent HoLEP in our department from June 2019 to November 2021. All the procedures were performed by a single experienced surgeon. The enucleation was performed using Gilling's technique with a 120 W holmium laser machine (Lumenis Ltd, Israel), a 26 Fr continuous flow resectoscope (Karl Storz Endoscopy, Tuttlingen Germany) with a laser bridge, and a 550 μ end-firing holmium laser fiber. The patients were randomized into two groups, the first (Group 1) underwent HP (High Power)-HoLEP (80-100 W) and the second (Group 2) LP (Low Power)-HoLEP (30-40 W). Patients whose experienced perioperative complications were excluded from the study. Continence status, International Prostatic Symptoms Score (IPSS) score were evaluated after 1 month.

Results
50 patients met the inclusion criteria. Mean age was 63.2 years. Mean prostate size was 86.5 ml (54-182 ml). We found that mean Enucleation efficiency was 0.91 g/min (0.66-1.09 g/min) and 0.84 g/min (0.59-0.97 g/min), while morcellation efficiency was 3.99 g/min (3.59-4.29 g/min) and 3.74 g/min (2.59-4.35 g/min) for Group A and B, respectively. The difference was not significantly different between the 2 Groups ($p > 0.05$). Although Haemoglobin drop (g/dL) was found to be higher in LP Group, the difference was not statistically significant (0.70 for Group 1 vs. 0.74 for Group 2). Stress Urinary Incontinence (SUI) rates did not differ significantly after catheter removal (2% vs 3%; $p > 0.05$) and at the first month (1% vs 1%; $p>0.05$). Furthermore, Urge Urinary Incontinence (UUI) rates were lower in Group 2 both after catheter removal (8% vs 3%; $p< 0.05$) and at the first month (3% vs 1%; $p=0.03$). Finally, IPSS after catheter removal (17.3 vs 14.9; $p< 0.05$) and during the first month (9.1 vs 7.1; $p< 0.05$) were also significantly better in Group 2.

Discussions
HoLEP technique underwent various modifications over time and a standard procedure is yet to be defined and accepted (1). Traditionally, HoLEP has been performed using a high-power holmium laser of greater than 80 W. Rassweiller et al. noted that HoLEP could be performed using an intermediate-power 50 W holmium laser (2). Although power settings of 24 W and 40 W allowed safe enucleation, the authors reported a blood transfusion rate of 10% and 8% respectively. Moreover, operation time decreased by 27% when the power setting was increased from 24 to 40 W. These findings indicated that lower power settings increased the duration of surgery and frequency of blood transfusion requirement. Reuther et al. (3) reported that their outcomes for patients undergoing HoLEP at 50 W were comparable with traditional 100 W settings. The results of our study suggested that the postoperative haemoglobin drop was similar between the two Groups. In any case, we suggested combined haemostasis with a bipolar electrode in case of difficulty with haemostasis. Considering the efficiency of the procedure, Elshal et al. noted that LP-HoLEP was non-inferior to HP-HoLEP for all the parameters regardless of the level of surgeon expertise (4). Our data indicated that, despite HP settings increased Enucleation and Morcellation Efficiency, this difference is not statistically significant between the two groups. According to voiding parameters, many authors confirmed that, at higher frequencies, the Ho:YAG laser might act as a continuous wave laser increasing the photothermal effect and so the irritative symptoms (5). In our series, this was em-

pirically demonstrated as Group 2 patients experienced less postoperative irritative symptoms than Group 1. Our study has also some limitations. First, the small sample size limits the generalizability of the results. Moreover, our data reflect the experience of a single experienced endoscopist, so our findings may not be transferable to novice surgeons. Furthermore, the follow up was too short. Despite this, our series indicated that LP-HoLEP has a comparable efficiency to HP-HoLEP, with similar peri-operative outcomes and less irritative symptoms. We believe that more reliable data can be obtained prolonging the follow up and recruiting more patients in multiple centres.

Conclusion

Our data demonstrated that HoLEP, in experienced hands, can be performed safely and without any technical problems using a low energy settings. These findings could favour a widespread diffusion of this procedure.

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21 maggio 2022

10:00 - 11:00

sala C

Comunicazioni 7 - Cistectomia: Quale Strada Seguire?

Moderatori: Luca De Zorzi, Michele Di Dio

1. #161: TRATTAMENTO DELLE NEOPLASIE VESCICALI MEDIANTE ASPORTAZIONE EN-BLOC CON LASER TULLIO: LA NOSTRA ESPERIENZA

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Objective

La resezione transuretrale dei tumori della vescica (TURB-T), è ad oggi il gold standard per il trattamento dei tumori della vescica. I tumori della vescica vengono asportati in frammenti invece che essere asportati in blocco, favorendo però il seeding neoplastico e una possibilità di recidiva precoce. Il laser a Tullio, meglio del laser ad Olmio, vaporizza e taglia il tessuto per contatto, offrendo la possibilità di eseguire un'asportazione "en-bloc" di neoplasie vescicali, con contemporanea vaporizzazione della base di impianto e del tessuto circostante. Riportiamo un aggiornamento della nostra esperienza allo scopo di determinare se la resezione laser en-bloc con laser al tullio Revolix 120W e 200W possa offrire vantaggi rispetto alla resezione classica.

Materials and Methods

Da Aprile 2011 a Settembre 2021, 220 pz. (196 maschi/24 femmine) con carcinoma della vescica di nuova diagnosi o recidiva sono stati sottoposti a en-bloc TURB-T con con laser Tullio. Le dimensioni delle neoformazioni trattate variavano da 7 a 60 mm e una multifocalità era presente nel 5% dei casi. Le lesioni trattate erano localizzati nella zona otturatoria, sulle pareti laterali, anteriori e posteriori.

La neoplasia è stata rimossa "in blocco" in tutti i casi. Quando la dimensione del tumore era maggiore di 3 cm è stata eseguita l'escissione della lesione suddividendola nella vescica in due o più pezzi mediante laser al Tullio. Tutti i casi di neoplasia vescicale di alto grado sono stati sottoposti ad un 2nd-look dopo 30-45 giorni.

Results

L'esame istologico delle lesioni trattate riportava cistite cronica in 12 casi (5,45%) e carcinoma uroteliale di basso grado Ta, T1 di alto grado e T2 di alto grado rispettivamente in 124 (56,4%), 72 (32,7%) e 24 pazienti (10,9%). I dati patologici hanno dimostrato un chiaro vantaggio in termini di accuratezza della valutazione istopatologica, in quanto il detrusore vescicale è stato fornito in

tutti i casi, comprese le neoplasie localizzate in zona otturatoria. L'emostasi è stata eccellente e in nessun caso si è verificata ematuria postoperatoria. Tutti i pazienti con T2 di alto grado e 9 pazienti su 72 con T1 di alto grado sono stati sottoposti a cistectomia radicale: in questi ultimi casi l'esame istologico definitivo ha evidenziato assenza di malattia (T0). Ad oggi, con un follow-up medio di 25,6 mesi, il tasso di recidiva nei pazienti con malattia non-muscolo invasiva è del 15,7%.

Discussions

La nostra esperienza fornisce dati incoraggianti sulla riduzione del tasso di recidiva tipico dei tumori della vescica non muscolo-invasivi. Questo la tecnica laser permette di mantenere sempre un corretto piano di resezione, favorisce un'escissione più accurata della neoplasia rispetto a la classica TURB-T e permette di ottenere una vaporizzazione del letto di resezione e dei margini chirurgici, riducendo il rischio di recidiva.

Conclusion

L'ablazione laser del cancro alla vescica sembra essere un metodo semplice e affidabile in grado di superare il problema di seeding con possibilità di recidiva precoce associato alla tecnica tradizionale di resezione.

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2. #190: EARLY OUTCOMES OF ROBOT ASSISTED RADICAL CYSTECTOMY

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Objective

The introduction of the DaVinci robotic system has implemented many surgical procedures quickly becoming the gold standard especially in more complex procedures. Although it is now an established approach for prostate cancer, it is not yet so for urothelial cancer. We retrospectively assessed all patients who underwent radical cystectomy at the urology units of Pisa, dividing them according to the surgical approach (Open vs Robotic). The aim of the study is to evaluate the intraoperative and early postoperative outcomes of the two approaches.

Materials and Methods

From 1 January 2018 to 1 June 2021 a total of 143 patients underwent radial cystectomy at the two urological units of the AOUP. These patients had MIBC or high-risk recurrences NMIBC (BCG ressistent and recurrents) and underwent radical cystectomy (RC) with pelvic lymphadenectomy (PLND). In the population examined no exclusion criteria related to age, sex, co-morbidity or curative or palliative intent were introduced. The open RC sugery were performed by 4 surgeons while the robotic ones were performed by a single operator with totally intracorporeal urinary reconstruction. The 4 operators are identified as Experts for open and robotic cases (the single operator had about 20 RARC assets before the start of the study). It should be noted that patients with cardiac ejection fraction less than 36%, retinovascular pathology and ventriculoperitoneal shunts incompatible with high intraperitoneal pressures were excluded from robotic treatments. Obesity, previous abdominal surgery, locally advanced disease and age were not contraindications to robotic treatment. The patients were all evaluated preoperatively with complete staging exams with chest, abdomen and urographic phase CT, bone scan and in case of doubtful secondaryisms with targeted nuclear exam and than a a multidisciplinary oncological and anesthetic evaluation. Targeted intraoperative antibiotic prophylaxis was performed following the persistence of the culture positivity. Patients with negative urine culture underwent empiric antibiotic prophylaxis in accordance with UAE and company guidelines with Ceftriaxone 2 g intraoperatively and 24 hours after surgery. All patients with positive rectal swab were excluded from the study. The postoperative treatment of patients was performed in compliance with the ERAS protocol. Post-operative pain control was achieved with intravenous administration of non-opioid analgesics. Early perioperative complications (30 days) were collected and assessed with the Clavien-Dindo classification and preoperative assessment using the risk of the ASA system. The last patient included underwent CR in June 2021. Patients with FU less than 2 months were excluded. A PSM (propensity-score matching) was applied to statistically correct the demographic differences of the sample and the prognostic ones between the RARC and ORC group to minimize selection bias. In this way, the dependent variable was only the surgical approach. Continuous and discrete variables are reported with the mean ± SD (standard deviation). These are then compared with Student's test (continuous variables) and X^2 (discrete variables). 30-day postoperative

complications were analyzed with Fisher's accuracy test. The Kaplan-Meier test was used to evaluate cancer outcomes. All tests were double-tailed and were considered statistically significant with a $p < 0.05$.

Results

Patients were retrospectively divided into two cohorts using the open versus robotic approach. 86 patients underwent open radical cystectomy (ORC) of which 77 men and 9 women and 57 robotic cystectomies (RARC) of which 10 women and 47 men. The average age of ORC patients is 74.52 ± 8.52 while for the RARC group 72.30 ± 10.95 with a p of 0.87 (not significant). The BMI of the ORC group 25.72 ± 4.99 while for the RARC group BMI 25.63 ± 3.98 with a p of 0.49 (not significant). For the estimated intraoperative blood loss of the ORC group the mean is 663.4 ± 650.83 against 157.40 ± 67.57 of the RARC group with a very high significance p of 0.01. In the ORC group, 19 patients underwent intraoperative blood transfusions and only 3 for the RARC group. The pre-operative hemoglobin of the ORC group on average is 12.9 ± 2.09 against that of the RARC group of 12.81 ± 2.10 shows no significant difference (p of 0.22). The postoperative hemoglobin for the ORC group has an average of 9.74 ± 1.15 and in the RARC group of 11.26 ± 1.59 with a significance of p 0.018. The surgical times were 235.29 ± 77.42 minutes for open cystectomies and 305 ± 63.11 minutes for robotic cystectomies. In the open group, the urinary leads were 43 ureterocutaneostomies (UCS), 26 ureteroileocutaneostomies and 17 orthotopic hilar neobladders. In the robotics group there are 13 ureterocutaneostomies (UCS), 33 ureteroileocutaneostomies and 11 orthotopic hilar neobladders. The operative time difference in the comparison highlighted a p of 0.047. The GNT was removed after 1.21 ± 2.31 days in the ORC while in the RARC group 0.76 ± 1.06 with no significance (p 0.117). Intestinal canalization in RARC was reached in 2.8 ± 0.83 days while in ORC in 5.6 ± 4.7 p 0.001 (significant) as well as the oral feeding in the open group began in 2.62 ± 1.03 days while in the Open group in 3.71 ± 1.8 p 0.001 (significant). Patient mobilization was reached in the Open group in 3.69 ± 4.83 days while for the Robot group in 1.8 ± 1.64 days p 0.043 (not significant). The RARC patients were discharged in 9.7 ± 5.59 days versus the 13.86 ± 5.38 days for the ORC with a significant difference (p 0.035). As postoperative complications we report two episodes of Delirum in the Robotic group and 1 in the Open group (with patients over 76 years of age). Dehiscences of the early ileal urethral anastomosis (within the first 3 months) were reported in the Robot group in 6 patients and in the open group in 13 patients. The treatment involved 2 permanent nephrostomies and 4 endoscopic recanalizations in the robot group, while in the open group 5 permanent nephrostomies, 7 endoscopic recancalizations and 1 surgical revision were required. In the open group, 8 wound dehiscences were reported, 2 of which required surgical revision.

Discussions

The weaknesses of our study is the model of the study itself (retrospective case control study), the absence of exclusion criteria and of data related to oncological FU. Another limitation of the study is linked to the small size of the sample, the higher number of surgeons in ORC (it is not possible to make a comparison excluding operator-dependent bias as, according to curricular standards, operators had already completed the learning curve). In order to have a reliable evaluation a randomized multicentre study with a larger population sample would be needed. Robotic surgery has been correlated with an improvement in perioperative outcomescs which appear better than traditional surgery with higher costs and a steeper and longer learning curve. (8-9) Our results show a statistically significant reduction in intraoperative blood loss. This, as already and similarly demonstrated for radical prostatectomy [10], can be linked to the presence of the pneumoperioteum, to a more accurate dissection and haemostasis but above all to an easier and earlier control of the Santorini plexus. This data is further supported by the significant difference in post-operative hemoglobin value which in the robotic group are statistically higher. The surgery operative time and the procedure costs show an advantage of the Open procedures which are faster. With the increase in the surgeon's experience, the time of robotic procedures decrease. The raw costs of robotic surgery, as demonstrated by Forsmark et al [11] within the Swedish health system are higher (RALP vs RRP). However the lower postoperative cares for the robotic group can reduce the difference between open and robotic cystectomy. In the same study, however, it was evaluated that the increase in volume has a direct effect on the reduction of costs linked to the greater experience of the surgeon but also to the reduction of purchase costs. In high-volume centers, therefore, the costs of robotics tend to decrease. The greatest difference and benefit of RARC is found in the post-opeartorial evaluations: shorter times of canalization and start of oral feeding, patient mobilization, lower post-operative pain and therefore a lower consumption of opioids (lower effect of intestinal paralysis) and so a faster patients discharge. [15] [16] All these advantages are not able to reduce the higher costs of robotic surgery. However post-hospitalization costs should also be characterized. These costs are linked to complications and additional services. For example, in the cost of radical retropubic prostatectomy, the costs of additional treatments for bladder urethral anastomosis stenosis should also be quantified. In the RALP this complication has been greatly reduced. The same could be said for the aids used for the treatment and control of continence [17]. The lower incidence of ureterileal anastomotic stenosis should also be similarly reported. The use of low-tension microsutures and a more delicate tension on the ureterileal anastomosis results in less scarring stress, just as happens in the bladder urethral anastomosis of RALP. However, the dehiscence of the anastomosis remains a relatively frequent complication. Urinary-derived radical cystectomy is one of the most complex interventions in urology. The robotic approach is further complicated, especially in the completely intracorporeal derivation. The multicenter study conducted by Matthew et al. evaluating the operating times, the number of lymph nodes removed and the blood losses, he was able to draw up a learning curve of the procedure with progressive optimization of the results that reach a standard comparable to the consolidated open practices after 30 procedures. However, these data are valid for high volume centers, as already demonstrated in fact, the outcomes and mortality of radical cystectomy also vary according to the volume of the center. [18]

Conclusion

Robot-assisted radical cystectomy is now establishing itself as the new gold standard for the surgical treatment of muscle invasive bladder cancer. However, the limits of this procedure persist to be linked more to the costs of the robotic device than to doubts about oncological results increasingly similar to those of the open treatment. Another critical point is also linked to the

learning curve which is not yet well codified and which often provides an already abundant robotic experience at the base. Oncological doubts, on the other hand, remain linked to locally advanced diseases which, even in our experience, are at greater risk of manipulation and which can therefore objectively lend themselves to carcinosis phenomena. Also this with regard to locally advanced diseases, as happens for urothelial neoplasms of the upper path, there is no evidence of a better minimally invasive oncological outcome but perhaps this is more related to the lack of comparison data and the robotic experience of the operators. In an isoresource system, therefore, robotic assisted cystectomy represents a valid alternative, if not a better one, to traditional open surgery.

3. #129: LONG-TERM ONCOLOGIC OUTCOMES AND PREDICTORS OF RECURRENCE, CANCER-SPECIFIC AND OVERALL SURVIVAL: RESULTS FROM A HIGH-VOLUME CENTER LARGE CONSECUTIVE SERIES OF ROBOT ASSISTED RADICAL CYSTECTOMY WITH INTRACORPOREAL URINARY DIVERSION

G. Tuderti[1], R. Mastroianni[1], L. Misuraca[1], A.M. Bove[1], S. Guaglianone[1], U. Anceschi[1], A. Brassetti[1], M. Ferriero[1], M. Gallucci[1], G. Simone[1]

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Objective

Robot assisted radical cystectomy (RARC), with extracorporeal urinary diversion (ECUD) gained a wide diffusion, while intracorporeal urinary diversion (ICUD) remains underused. However, long-term data about oncologic outcomes are limited. The aim of this study was to report long-term oncologic outcomes of RARC-ICUD, identifying their predicting factors.

Materials and Methods

Our single center IRB approved bladder cancer database was queried for "RARC" and "ICUD". All patients were treated between January 2012 and September 2020. Baseline demographic, clinical, perioperative and pathologic data were collected and reported. Kaplan-Meier curves were performed to assess disease-free (DFS), cancer-specific (CSS) and overall survival (OS) probability over time. Univariable (UV) and multivariable (MV) Cox regression analysis were adopted to identify independent predictors of DFS, CSS and OS during the follow-up.

Results

Overall, 251 patients were included, 190 were male (75.7%). Complications occurred in 31.5 % of patients, with Clavien grade ≥3 reported in 10.4 %. One-third of patients underwent neoadjuvant chemotherapy (33.3%). With a median number of 30 Lymph-nodes removed, nodal involvement was detected in 22.4 % of cases, and positive surgical margins (PSM) were observed in 17 patients (6.8%). Five-yr DFS, CSS and OS rate were 66.5%, 65.4% and 61.5%, respectively.

At MV Cox regression analysis stage T ≥3 and pathologic nodal involvement were identifed as independent predictors of DFS (HR 2.39; p=0.001, HR 4.64; p=<0.001), CSS (HR 2.20; p=0.01, HR 3.97; p=<0.001) and OS (HR 2.25; p=0.005, HR 3.95; p=<0.001), while PSM predicted lower DFS (HR 2.02; p=0.04), displaying a trend towards significance in predicting CSS (HR 1.89; p=0.06). Finally, ASA score ≥3 independently predicts OS (HR 1.70; p=0.04 and showed a trend towards significance in predicting CSS (HR 1.65; p=0.07).

Conclusion

We reported long-term oncologic outcomes of a large consecutive series of RARC-ICUD, identifying the predicting factors of survival outcomes. Our results seem aligned to the largest historical open series data, and needs to be corroborated from long-term results coming from randomized trials comparing open to robot-assisted approach.

4. #128: ROBOT ASSISTED RADICAL CYSTECTOMY WITH INTRACORPOREAL PADUA ILEAL NEOBLADDER: LONG-TERM FUNCTIONAL OUTCOMES AND CONTINENCE PREDICTORS ASSESSMENT FROM A HIGH-VOLUME CENTER LARGE CONSECUTIVE SERIES

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Objective

Despite the increasing popularity gained by Robot assisted radical cystectomy (RARC), there is paucity of data about long-term functional outcomes of RARC with intracorporeal orthotopic ileal neobladder (ION). The aim of this study was to report long-term functional outcomes of RARC-ION, and to assess its predicting factors.

Materials and Methods

Our single center IRB approved bladder cancer database was queried for "RARC" and "ION". RARC and ION according to Padua Ileal Neobladder technique was previously described [1]. All patients were treated between January 2012 and September 2020, with a minimum 1-yr follow-up. Baseline demographic, clinical, perioperative and pathologic data were collected and reported. Functional outcomes evaluated consisted of: renal function modification over time, neobladder stone formation rate, development of uretero-ileal anastomosis strictures, need for self-catheterization and Trifecta achievement rate, defined as the coexistence of daytime urinary continence, Clavien-Dindo ≥3 complication-free and recurrence-free status, all assessed at 1 year. Kaplan-Meier method was performed to evaluate day- and night-time continence recovery probabilities over time; univariable and multivariable analysis were adopted to identify independent predictors of Day-time continence recovery during the follow-up.

Results

Overall, 192 patients were included, 146 were male (76%). Mean baseline estimated glomerular filtration rate (eGFR) was 83.5 ml/min (± 23.5) At a median follow- up of 41 months (IQR 21-60), mean last eGFR was 63.8 ml/min (± 22.1). The incidence of significant renal function deterioration (newly onset CKD stage ≥ 3b) was 16.1%. Neobladder stones were reported in 16 patients (8.3%), all of which successfully treated as outpatient endoscopic procedure. Incidence of ureteroileal anastomosis strictures was 22.4%, Trifecta was achieved in 64.1% of cases. One-yr day- and night-time continence rates were 78.6 % and 48.3 %, respectively. At multivariable analysis age, female gender and severe 30-d complications occurrence were identified as independent predictors of day-time incontinence during the follow-up.

Conclusion

We reported functional outcomes of a large consecutive series of RARC-iN, identifying the predicting factors of Day-time urinary incontinence over time. At long-term evaluation, diversion related complications and functional outcomes of RARC-iN are encouraging and largely comparable to those of open series and RARC with extracorporeal diversion.

Reference

[1] G. Simone, R. Papalia, L. Misuraca, et al. Robotic Intracorporeal Padua Ileal Bladder: Surgical Technique, Perioperative, Oncologic and Functional Outcomes. Eur Urol 2018; 73:934-40.

5. #126: ROBOT ASSISTED RADICAL CYSTECTOMY WITH INTRACORPOREAL PADUA ILEAL NEOBLADDER: GENDER-SPECIFIC COMPARATIVE ANALYSIS OF PERIOPERATIVE, ONCOLOGIC AND FUNCTIONAL OUTCOMES FROM A HIGH-VOLUME CENTER LARGE CONSECUTIVE SERIES

G. Tuderti[1], R. Mastroianni[1], L. Misuraca[1], A.M. Bove[1], S. Guaglianone[1], U. Anceschi[1], A. Brassetti[1], M.. Ferriero[1], M. Gallucci[1], G. Simone[1]

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Objective

Despite the increasing popularity gained by Robot-assisted radical cystectomy (RARC), there is few data concerning gender-specific comparative outcomes assessment after RARC with intracorporeal orthotopic ileal neobladder (ION). The aim of this study was to compare perioperative, oncologic and functional outcomes between two cohorts of male and female patients underwent RARC-ION in a high-volume center.

Materials and Methods

Our single center IRB approved bladder cancer database was queried for "RARC" and "ION". RARC and ION according to Padua Ileal Neobladder technique was previously described [1]. All patients were treated between January 2012 and September 2020, with a minimum 1-yr follow-up. Baseline demographic, clinical, perioperative, pathologic, oncologic and functional data were collected and reported. Trifecta was defined as the coexistence of daytime urinary continence, Clavien-Dindo ≥3 complication-free and recurrence-free status, all assessed at 1 year. Chi-square test and T student test were performed to compare categorical and continuous variables, respectively. Kaplan-Meier method was performed to compare oncologic outcomes, day- and night-time continence recovery probabilities over time.

Results

Overall, 192 patients were included, 146 males (76%) and 46 females (24%). The two cohorts showed comparable overall and severe perioperative complications rates (p=0.58 and p=045, respectively). At 3-yr follow-up DFS, CSS and OS rates were comparable among males and females (DFS: 76.9 % vs 74%, p=0.96; CSS: 77.5% vs 79.5%, p=0.64; OS: 74.9% vs 77.3%, p=0.93). Concerning the functional aspect, no differences were detected in terms of last eGFR (p=0.64) and newly onset of severe CKD stage (p=0.35) at a comparable mean follow-up (M 42.6 months vs F 43.8 months; p=0.78). However, Female cohort displayed a statistically significant higher rate of neobladder stones formation (23.9% vs 8.4%, p=0.009) and need for intermittent self-catheterization (30% vs 6.7%; p=0.02). Moreover, male patients reported a statistically significant higher rate of day-time continence recovery (12-mo:83.6% vs 63.5%, p=0.008), while no differences were detected for night-time continence (p=0.20). Eventually, male achieved significantly higher rate of Trifecta achievement (68.5 % vs 50%, p=0.03).

Conclusion

According to our results, female patients are significantly more exposed to neobladder stones formation and need for self-catheterization, and reported a lower rate of day-time continence recovery over time, with a consequent lower Trifecta achievement rate.

Reference

[1] G. Simone, R. Papalia, L. Misuraca, et al. Robotic Intracorporeal Padua Ileal Bladder: Surgical Technique, Perioperative, Oncologic and Functional Outcomes. Eur Urol 2018; 73:934-40.

6. #95: OPEN VS ROBOT-ASSISTED RADICAL CYSTECTOMY WITH TOTALLY INTRACORPOREAL URINARY DIVERSION: FUNCTIONAL OUTCOMES COMPARISON FROM A SINGLE CENTRE RANDOMISED CONTROLLED TRIAL

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Objective

The adoption of robot-assisted RC (RARC) is rapidly increasing. Functional outcomes of RARC with totally intracorporeal (i) orthotopic (o) urinary diversion (UD) have been poorly investigated. In this study, we assessed functional outcomes of a prospective RCT comparing ORC and RARC with iUD (NCT03434132).

Materials and Methods

Patients were eligible for randomization if they had a diagnostic TURBt with cT2-4, cN0, cM0, or recurrent HG NMIBC and no anesthesiologic contraindications to robotic surgery. Between January 2018 and September 2020 patients were enrolled with a covariate adaptive randomization process based on: BMI, ASA score, preoperative haemoglobin, planned UD [Padua ileal bladder (PIB) or ileal conduit], neoadiuvant chemotherapy and cT-stage. Aim of this study was to compare functional outcomes between groups. Continence status was evaluated trough 3-day voiding diaries; day- and night-continence was defined as pad wetness ≤20 gr per day/night. Continuous and categorical variables were compared using Mann-Whitney and Chi-Square tests. Kaplan-Meier (KM) method and the log-rank test were applied to compare between-arm probabilities of day-time and night-time continence recovery.

Results

Out of 116 patients enrolled, 88 underwent RC with PIB and were included in this study. Both groups were homogeneous for all clinical features (all p>0.158) (Tab 1). In the robotic group, PIB was performed in all cases with a totally intracorporeal approach, with no need of open conversion. 4 patients were excluded, 3 patients died within 6 mo after surgery and 1 patient had a permanent catheter. Pads use showed no statistically differences between groups: total- (p=0.074), day- (p=0.656) and night-pads (p=0.077). Day-pad wetness was comparable (p=0.200), while RARC cohort showed higher night-pad wetness (p=0.003). At KM analysis, day-time continence recovery probabilities were comparable between arms (1-yr: RARC 61.9% vs ORC 70.3%; p=0.180), while ORC cohort experienced significant higher night-time continence recovery probabilities (1-yr: RARC 14.4% vs 52.7%; p<0.001) (Fig. 1).

Conclusion

This RCT showed comparable day-time continence recovery probabilities between ORC and RARC arms, while night-time continence probabilities were higher in ORC cohort. Ongoing urodynamic evaluations may contribute to identify possible explanations.

7. #97: LONG-TERM GENDER-RELATED OUTCOMES IN RADICAL CYSTECTOMY: ONCOLOGIC, FUNCTIONAL AND HRQOL OUTCOMES COMPARISON FROM A SINGLE CENTRE RANDOMIZED CONTROLLED TRIAL

R. Mastroianni[1], G. Tuderti[1], U. Anceschi[1], A.M. Bove[1], A. Brassetti[1], M. Ferriero[1], L. Misuraca[1], S. Guagliano-ne[1], M. Gallucci[1], G. Simone[1]

[1] IRCCS "Regina Elena" National Cancer Institute (Roma)

Objective

There is paucity of reports on gender specific outcomes of RC with UD. In this study, we performed analysis of gender-related surgical, oncologic, functional and HRQoL outcomes from a prospective RCT (NCT03434132)

Materials and Methods

Between Jan 2018 and Sept 2020, patients with TURBt cT2-4,cN0,cM0, or recurrent HG NMIBC were enrolled with a covariate adaptive randomization process based on:BMI,ASA,baseline hgb, UD, neoad chemo and cTstage. 1yr surgical outcomes were

assessed with USC Pentafecta.Continence status was evaluated trough 3d voiding diaries; d- and n-continence was defined as pad wetness>20g per d/n.Data from EORTC questionnaires were collected.KM method and the log-rank test were applied to assess survival and functional outcomes. Normally distributed HRQoL continuous variables were compared with paired t test. A generalized linear mixed effect regression(GLMER)model including a random effect at patients level was used to test variation of items along time and between groups

Results

Out of 116 pts enrolled, 101 had a 1yr minimum fup. At baseline, female had worse global health status, emotional and sexual functioning, insomnia, future perspective and abdominal bloating and flatulence (all p<0.038), despite comparable clinical features. Pathologic, 1yr USC Pentafecta achievement and survival outcomes were comparable(Tab2Fig1).Time to continence recovery was comparable(Fig2); on quantitative analysis of pads use, female reported a higher number of d-pads use(p=0.020),and higher d-pad wetness(p=0.034Tab3). At 1yr, both cohorts reported worsening in terms of dyspnea, constipation and body image(all p<0.029Tab4).Male were also more likely to report impairment of physical and role functioning,fatigue,financial difficulties and sexual functioning,reporting an improvement in terms of future perspective(all p<0.043).Female reported an impairment of urinary problems and diarrhea(all p<0.088).At GLMER analysis,female reported higher worsening of urinary problems, while male reported a major impact of sexual functioning,with a slight improvement of future perspective(all p<0.048).

Conclusion

An objective assessment of surgical and oncologic outcomes did not identify significant gender-related differences. On subjective assessment, male reported significantly worse sexual functioning but better urinary symptoms and improved future perspective

8. #96: SHOULD WE LIMIT ROBOT-ASSISTED RADICAL CYSTECTOMY WITH TOTALLY INTRACORPREAL URINARY DIVERSION TO NEOBLADDER PATIENTS? HEAD TO HEAD COMPARISON OF OUTCOMES BETWEEN ROBOTIC VS OPEN ILEAL CONDUIT AND ROBOTIC VS OPEN NEOBLADDER

R. Mastroianni[1], G. Tuderti[1], U. Anceschi[1], A.M. Bove[1], A. Brassetti[1], M. Ferriero[1], L. Misuraca[1], S. Guaglianone[1], M. Gallucci[1], G. Simone[1]

[1] IRCCS "Regina Elena" National Cancer Institute (Roma)

Objective

The high late morbidity of Radical Cystectomy (RC) is usually linked to the type of urinary diversion (UD). We aimed to compare peri, postoperative and longterm HRQoL outcomes between ORC and RARC with totally intracorporeal (i) UD in patients who underwent Ileal Conduit (IC) and Padua Ileal Bladder (PIB) from an ongoing RCT (NCT03434132)

Materials and Methods

Inclusion criteria were: diagnostic TURBt with cT2-4cN0cM0, or recurrent HG NMIBC and no anesthesiologic contraindications to robotic surgery. Between Jan 2018 and Sept 2020, patients were enrolled with a covariate adaptive randomization process based on: BMI ASA baseline haemoglobin UD (PIB IC), neoadiuvant chemo and cTstage. Peri, 30d 90d postoperative outcomes and data from EORTC QLQ-C30 QLQ-BLM30 questionnaires were collected. Continuous and categorical variables were compared using Student t and Chi-Square tests. Normally distributed HRQoL continuous variables were compared with paired t test. A generalized linear mixed effect regression (GLMER) model including a random effect at patients level was implemented to test variation of HRQoL items along time and between groups

Results

Out of 116 patients enrolled 88 underwent PIB. Baseline outcomes were comparable, except for higher baseline body image for ORC with IC (p=0.046 Tab 1). In IC patients no differences occurred peri- and postoperatively, except for longer operative time of RARC cohort (p<0.001). In PIB patients RARC cohort showed higher overall and postoperative transfusions rate (all p<0.005) with higher EBL (p=0.029), resulting in higher perioperative minor (CD≤2) complications rate (p=0.009). Longer operative time of RARC cohort was confirmed also in PIB group (p<0.001). No differences occurred between groups in 30- and 90d postoperative courses (Tab 2). In IC patients, at GLMER 1yr HRQoL analysis, ORC showed a major impairment in terms of fatigue, dyspnea and abdominal bloating (all p<0.037). In PIB patients, at GLMER 1yr HRQoL analysis RARC cohort described a minor impact on body image and sexual functioning (all p<0.049).

Conclusion

This study confirmed the benefit of robotic approach in reducing overall transfusion in patients who underwent RC and intracorporeal PIB. Patients who underwent RARC with totally iUD, suffered a minor impact on HRQoL outcomes

21 maggio 2022

11:00 - 12:00

sala A

Video 5 - Rene e non solo

Moderatori: Carmelo Ippolito, Giovanni Muto

Focus on: *L'urologo ed il surrene*
Giovanni Muto

1. #160: CONTESTUALE SURRENECTOMIA E TUMORECTOMIA RENALE DESTRA LAPAROSCOPICA

L. Topazio[1], F. Chiaramonti[2], G.B. Clemente[2], F. Romantini[1], D. Biferi[1], C. Vicentini[3], F. Narcisi[1]

[1] *ASL Teramo, U.O. Urologia (Teramo)*

[2] *Scuola di specializzazione in urologia, Università degli Studi de L'Aquila (Teramo)*

[3] *Università degli Studi de L'Aquila, Cattedra di Urologia (L'Aquila)*

Il video mostra un interessante caso di trattamento contestuale di feocromocitoma e neoformazione renale destra per via laparoscopica. Il paziente giunge alla nostra osservazione per crisi ipertensive non responsive a terapia medica e contestuale riscontro di duplice neoformazione renale e surrenalica destra. I dosaggi ematici ed urinari degli ormoni surrenalici sono suggestivi per feocromocitoma. Il posizionamento dei trocars e la posizione del paziente sono quelli classici della surrenectomia. Non è stato necessario apportare modifiche alla posizione dei trocars nella fase renale grazie alla posizione polare superiore della massa. La fase renale è stata approcciata con uncino monopolare con tecnica "zero ischemia" mentre la sutura della breccia renale è stata affrontata con vicryl 0 con tecnica sliding clips prima della quale è stato utilizzato Floseal a scopo emostatico. Lo pneumoperitoneo è sempre stato mantenuto a 10 mmHg mediante insufflatore Airseal. È stato posizionato un drenaggio Redon 19 in loggia renale rimosso in 2a giornata. In 3a giornata post-operatoria il paziente è stato dimesso.

2. #182: NEFRECTOMIA PARZIALE LAPAROSCOPICA CON L'UTILIZZO DI INDOCIANINA VERDE IN PAZIENTE CON NEOFORMAZIONE RENALE SINISTRA DI 5.5 CM

A. Testa[1], F. Esperto[1], F. Prata[1], A. Civitella[1], P. Tuzzolo[1], V.G. Crimi[1], G. Raso[1], R.M. Scarpa[1], R. Papalia[1]

[1] *Università Campus Bio-Medico (Roma)*

Nel video mostriamo una nefrectomia parziale laparoscopica con somministrazione di indocianina verde (ICG). Paziente di 68 anni con riscontro incidentale di neoformazione di 5.5 cm a carico del rene sinistro. Non siamo soliti isolare l'ilo renale ma eseguiamo la nefrectomia parziale laparoscopica con tecnica off-clamp. Il Ligasure ci consente di ottenere un ottimo piano di clivaggio per via smussa, oltre ad essere uno strumento emostatico. Dopo l'incisione della doccia parieto-colica sinistra e la mo-

bilizzazione del rene, la massa è stata esposta. 25 mg di ICG sono stati diluiti con 20 ml di soluzione fisiologica sterile. Circa 2-3 minuti prima dell'enucleazione della massa, 10 ml della suddetta soluzione sono stati iniettati endovena in bolo. L'ICG ci ha permesso di eseguire la nefrectomia parziale in sicurezza, senza clampare l'ilo renale, seguendo la luce verde che mostrava il corretto piano di clivaggio fra il parenchima renale sano e la massa. Dopo l'enucleazione, è stata ottenuta un'emostasi perfetta grazie alla visione monocromatica della colonna Karl Storz Rubina. Infine la breccia renale è stata chiusa con un singolo punto transfisso Monocryl 0 con tecnica sliding-clips. Il paziente è stato dimesso in seconda giornata post-operatoria. L'esame istologico definitivo deponeva per voluminoso angiomiolipoma.

3. #172: TUMORECTOMIA RENALE SN RETROPERITONEALE PARAILARE E POLARE SUPERIORE SINISTRA

M. Falsaperla [1], A. Di Dio [1]
[1] *Ospedale ARNAS Garibaldi Nesima (Catania)*

Paziente affetta da doppio tumore renale, parailare sn e polare superiore sottoposta a tumorectomia renale doppia retroperitoneale

4. #171: NEFRECTOMIA RADICALE SINISTRA CON TROMBO DELLA VENA RENALE E PLESSO PAMPINIFORME DI SINISTRA

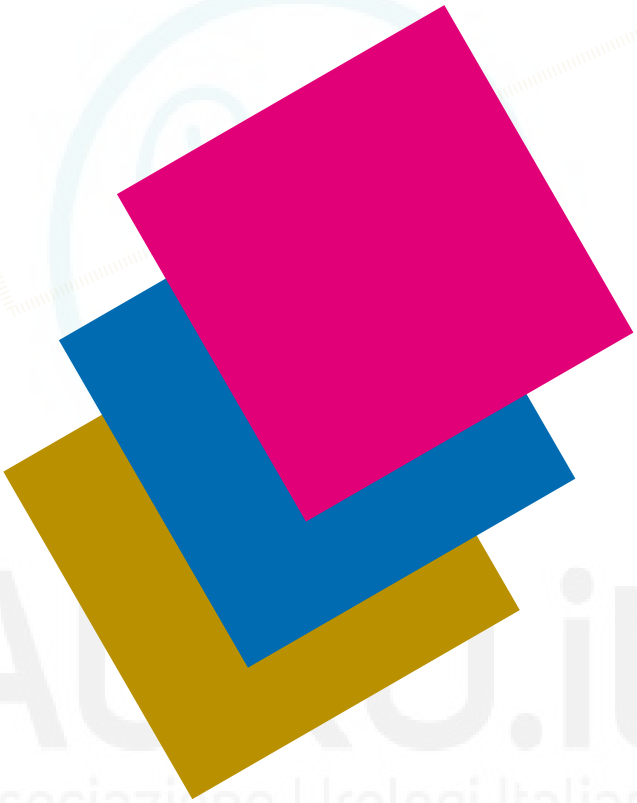
M.. Falsaperla [1], A. Di Dio [1]
[1] Ospedale ARNAS Garibaldi Nesima (Catania)

Paziente obeso affetto da k rene di sinistra con trombo della vena renale di sinistra e del plesso pampiniforme di sinistra.

5. #76: EXCISION OF A LARGE RIGHT ADRENAL NEOFORMATION ADJACENT TO THE DUODENUM AND INFERIOR VENA CAVA (IVC)

N. Fiorello[1], A. Di Benedetto[2], A. Mogorovich[2], D. Summonti[2], C.A. Sepich[1]
[1] *Ospedale San Luca, U.O.C. Urologia (Lucca)*
[2] *Ospedale Versilia, U.O.C. Urologia (Camaiore)*

The video shows the main parts of the surgery, particularly difficult due to the proximity of the lesion to the IVC and the duodenum and for the management of the adrenal vessels.



21 maggio 2022

11:00 - 12:00

sala B

Comunicazioni 8 - Chirurgia Oncologica

Moderatori: Angelo Naselli, Paolo Viganò

Focus on: *Supporti tecnologici nel Carcinoma della Prostata*

Angelo Naselli

1. #78: SICUREZZA ED EFFICACIA DELLO SPACER BIOPROTECT IN PAZIENTI CANDIDATI A RADIOTERAPIA PER CARCINOMA PROSTATICO ORGANO-CONFINATO

L. Topazio[1], F. Narcisi[1], C. Vicentini[1], F. Romantini[1], F. Tana[2], B. Bianchi[2], G. Zasa[2]

[1] ASL Teramo, U.O. Urologia (Teramo)

[2] Scuola specializzazione Urologia, Università de L'Aquila (L'Aquila)

Objective

Valutare la sicurezza e l'efficacia del posizionamento dello Spacer Bioprotect in pazienti affetti da carcinoma prostatico candidati a trattamento radiante

Materials and Methods

Studio di tipo prospettico osservazionale. Sono stati arruolati, in un periodo compreso tra luglio e dicembre 2020, tutti i pazienti affetti da Carcinoma prostatico a rischio intermedio sfavorevole candidati a terapia radiante ipofrazionata. A tali Pazienti veniva proposto il posizionamento dello spacer retro-prostatico al fine di ridurre la tossicità rettale. Sono state valutate le tempistiche della procedura, le complicanze correlate e la tollerabilità del device. Lo spacer veniva posizionato in setting ambulatoriale col paziente in posizione litotomica. Nel peri-procedura al Paziente veniva somministrata Cefazolina 1 gr ev (tale regime veniva prolungato a domicilio in caso di comparsa di complicanze).Il paziente veniva quindi sottoposto a ecografia prostatica trans-rettale con sonda biplanare attraverso la quale si procedeva a somministrazione di anestesia locale cutanea e sull'elevatore dell'ano con mepivacaina al 2% (1-2 fiale). Successivamente si procedeva ad incisione cutanea a livello perineale, sul rafe, 1 cm anteriormente all'ano. Si inseriva quindi il dilatatore posteriormente alla prostata, a livello della fascia di denonvillier, effettuando un'idrodissezione per creare un piano ben definito dall'apice prostatico sino alle vescicole seminali. Successivamente all'idrodissezione si avanzava il device contenente il palloncino ed identificata la punta a livello delle vescicole seminali si procedeva al gonfiaggio con soluzione fisiologica ed al rilascio dello stesso. Il corretto

posizionamento veniva confermato tramite ecografia trans-rettale. Il Paziente veniva quindi osservato ambulatorialmente e registrate eventuali complicanze e tempo di permanenza in osservazione. Il Paziente veniva successivamente controllato a 10 giorni per verificare eventuale insorgenza di complcanze tardive e valutare la tollerabilità del device. Si è proceduto a registrare durata della procedura (min, range), durata dell'osservazione (min, range), comparsa di complicanze precoci e tardive ed entità delle suddette, tollerabilità del device (con scala da 0 a 10 per definire il discomfort; 0 nessun discomfort – 10 completo discomfort + valutazione di senso di ingombro pelvi-perineale ed alterazioni dell'alvo).

Results

Da luglio al dicembre 2020 sono stati arruolati presso la nostra Unità operativa 20 pazienti per posizionamento di spacer Bioprotect. La procedura è stata eseguita in setting ambulatoriale nei modi descritti nella precedente sezione. Tempo medio della procedura è stato 18 minuti (range 10-25 Min). Il paziente è sempre stato dimesso entro due ore della procedura (tempo medio di osservazione 90 minuti, range 45-110 min), dopo la ripresa della minzione spontanea ed un controllo circa l'assenza di complicanze precoci. Per quanto riguarda le complicanze precoci, in due pazienti (10%) si è assistito ad episodio di ritenzione acuta di urine per cui è stato necessario procedere a cateterismo vescicale ed un paziente ha presentato comparsa di ematoma perineale di lieve entità che non ha richiesto procedure di drenaggio. Per quanto riguarda le complicanze tardive, un Paziente (5%) ha sviluppato iperpiressia (>38°C) nei giorni successivi alla procedura per cui è stato necessario prolungare il regime antibiotico. Non sono state riscontrate complicanze di grado medio-elevato. La tollerabilità del dispositivo è stata ottimale con risultati pari ad una media di 2 e range di 0-4 sulla scala precedentemente descritta. Nessun paziente ha riferito disturbi nella defecazione, alterazione del transito intestinale o senso di ingombro del piano pelvico-perineale.

Discussions

La tossicità rettale rappresenta una drammatica complicanza della radioterapia per adenocarcinoma prostatico e varie strategie sono state utilizzate al fine di ridurne gli effetti ma al giorno d'oggi questa problematica tende in alcuni casi a limitare l'accesso al trattamento radiante o portare un sensibile peggioramento della qualità di vita dei Pazienti. L'introduzione di questo device rappresenta un'importante novità al fine di migliorare la tollerabilità del trattamento radioterapico e permettere anche un utilizzo di maggiori dosi nei casi nei quali sia richiesto. I pochi studi presenti in letteratura mostrano come l'utilizzo di spacers retroprostatici possa portare ad una sensibile riduzione della tossicità rettale; alcuni studi comparativi hanno valutato la dosimetria rettale in pz portatori di spacer mostrando risultati notevolmente migliori sul carico di radiazioni a livello del basso tatto gastrointestinale. Dalla nostra limitata esperienza il posizionamento di tale device appare sicuro e rapido. La procedura presenta il vantaggio di poter essere effettuata in setting ambulatoriale senza il ricorso alla sala operatoria con costi relativamente bassi a carico del sistema sanitario. I tassi di complicanze precoci e tardive sono risultati bassi e sempre con complicanze di grado lieve. La procedura è inoltre risultata ben tollerabile non creando senso di discomfort al Paziente.

Conclusion

Lo Spacer Bioprotect rappresenta una valida arma a nostra disposizione per cercare di limitare la tossicità rettale in pazienti candidati a radioterapia prostatica. Il device appare sicuro e ben tollerato ed il posizionamento non presenta particolari difficoltà tecniche nè rischi di complicanze maggiori.

Reference

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2. #111: MPMRI AND FUSION BIOPSY ROLE FOR THE DETECTION OF PROSTATE CANCER: EARLY VALUTATION OF PERFORMANCE AND COMPARISON WITH SYSTEMATIC BIOPSY

C. Prevato[1], G.C. Rocca[1], F. Scabbia[1], M. Gagliano[1], D. Sartori[1], P. Garavelli[1], G. Capparelli[1], L. Fornasari[1], M. Tilli[1], E. Raimondi[1], C. Ippolito[1]

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Objective

Prostate cancer diagnosis is determined by the detection of anatomo-pathological positivity at the biopsy required in presence of clinical suspicion. Since a few years mpMRI has been introduced with important changes at the diagnostic algorithm, in most cases a bi-parametric approach based on the study of T2-weighted and DWI sequences is used. Imaging is reported using the PIRADS system (v 2.1), which assigns the lesion to a category from 1 to 5. Current EAU guidelines for prostate cancer (1) recommend the use of mpMRI in both biopsy-naive and rebiopsies:

in case of positivity it is recommended to add to random sampling also targeted sampling in the suspected area. Target biopsy can be performed through several approaches: cognitive, fusion or in-bore. The main endpoint is to evaluate the performance of fusion biopsy comparing it with systematic biopsy in a center that has recently started to perform this technique.

Materials and Methods

We collected data from 78 patients who underwent fusion biopsy from February 2020 to October 2021, 59 of whom also underwent systematic biopsy. MRIs were performed externally, but during biopsy procedures they were re-evaluated by our radiologists who collaborated with the urologist during the whole procedure. We used Canon Aplio i700 as ultrasound machine for TRUS and fusion of MRI. As first outcome all 78 patients were included and the results of fusion and systematic biopsies were analyzed separately. As second outcome, only patients who underwent both types of biopsy were considered in order to evaluate the differences. As third outcome, always considering patients who underwent both fusion and systematic biopsy, we wanted to highlight the "diagnostic accuracy" of the two techniques through the evaluation of the differences in the GS obtained.

Results

A total of 78 patients underwent fusion biopsy, 59 of these also underwent systematic biopsy. The mean age of our sample was 68 years with a mean PSA value of 6.92 ng/mL. We diagnosed 54 PCA (69%) of which 36 csPCA (46%), negative biopsies were 24 (30%). From the 78 target biopsies performed, 49 (62%) were positive and 33 (42%) positive for csPCA; 29 (37%) were negative. Comprehensively 59 systematic biopsies were performed, always in addition to fusion biopsies and never as only sampling method. The results obtained in this case are the following: 38 positive (64%), 20 positive for csPCA (33%) and 21 negative (35%). The detection ratio fusion/random for all lesions is 0.97 while the detection ratio fusion/random for csPCA is 1,25. In the 59 patients who underwent fusion and systematic biopsy in 45 cases (76%) the result was the same. There were 8 (13%) patients fusion-positive but not identified by systematic biopsy, in 5 of whom an ISUP >= 2 lesion was found. In the end 6 patients (10%) were identified only by systematic biopsy, none of them demonstrated a clinically significant lesion. Regarding the GS of patients undergoing both types of biopsy in 38 cases (64%) the result was the same, in 12 cases (20%) the GS was greater at fusion and in 9 cases (15%) the GS was greater at systematic.

Discussions

Over the years mpMRI has spread considerably and has become an integral part of the diagnostic pathway for patients with clinical suspicion of PCA. In the PRECISION trial (2) 500 patients with suspected PCA were randomized into two groups, in one group they underwent SB and in the other mpMRI-TB. In the target biopsy group ISUP >=2 lesions were found in 38% of cases while in the systematic biopsy group only in 26%. This is in line with our findings (42% in target biopsies, 33% in systematic biopsies). If we consider ISUP 1 lesions, the sensitivity of target biopsy decreases, becoming lower than in systematic biopsy as demonstrated in (1)(3)(4). Our data do not deviate from this trend with a detection rate for ISUP 1 lesions of 20% (TB) and 28% (SB). It has been shown in several papers that the absolute added value (intended as the number of patients identified by a single sampling methodic) is higher in TB than SB (5)(4)(3). What we found in our center is in line with this, moreover all false negatives resulting from TB were ISUP = 1. Comparing the GS obtained through the two procedures in 20% of cases TB identified a higher GS than SB while in 15% of cases the higher GS was obtained through SB. In 64% of patients there was no difference in the final GS.

Conclusion

The use of mpMRI-TB in patients with clinically suspected PCA has been shown to be an effective approach. The greatest benefit is obtained in ISUP >= 2 cancers, where sensitivity is higher than with SB. Also the absolute added value of TB is higher than that of SB, especially if we consider that in our case series most of them were ISUP >= 2 lesions. It is essential, however, to combine TB with SB, especially in biopsy naive patients, to reduce the risk of false negatives. Successful fusion methodic requires several factors and it is therefore necessary to standardize the procedure.

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3. #135: FUSION PROSTATE BIOPSY: TIP AND TRICKS TO IMPROVE RIGID REGISTRATION

A. Naselli[1], I. Oliva[1]

[1] *Ospedale San Giuseppe, gruppo Multimedica (Milano)*

Objective

Fusion of mpMRI images in real time with ultrasound scan during the biopsy (the so-called "fusion biopsy") is a technological improvement, which has fast spread among the urological community. It has a major advantage over real time in bore MR guided biopsy because it remains an office and far less expensive procedure and over cognitive fusion, which can be equivalent only in the hand of experienced operators [1]. Image registration may be elastic or rigid whether a software adjustment accounting for prostate deformation is provided or not. Up to date, no significant difference in terms of outcomes has been found in a systematic review [2]. Overall, there is a consensus about that rigid registration may be obtained faster and easier, while achieving the same accuracy [3,4] and that may be more accurate in the peripherical zone of the prostate [4] where most of cancers develop. Reliability of rigid registration during fusion prostate biopsy may be hampered by the shape deformation of prostate gland which may lead to a misalignment and eventually to a targeting mistake [4]. During practice, we refined the registration process with the introduction in the clinical practice of some tip and tricks to overcome the limits of rigid registration while maintaining its advantages respect to elastic fusion. In order to assess the reliability of our technical modification, we reviewed our institutional database of fusion prostate biopsies

Materials and Methods

Biopsy technique:

The patient is invited to urinate and to perform a cleansing enema before to perform mpMRI and fusion biopsy in order to have similar anatomical conditions. We discourage the use of mpMRI with the help of trans rectal probe because it provokes a severe deformation of the prostate that could interfere with the registration process. We perform a transrectal biopsy with an Esaote MyLab system@. The first step is to identify the mpMRI suspected areas and to mark them. The second step is the local anesthetic ultrasound guided injection along the neurovascular bundles from the base to the apex of gland. We perform it before the registration so that we may account for eventual deformation of the gland profile. The third step is the registration. We fix the mpMRI on the suspected area and then we look at TRUS to find the exact overlapping scan. The main landmarks are 1) the rectal wall 2) the boundary among transitional/central and peripheral zone of the gland 3) the profile of the periphery of the gland. Various artifacts may alter the contour of the gland (particularly in the anterior part of the gland where we benefit most from mpMRI) whereas the boundary among transitional and peripheral zones of the prostate is less prone to deformation [5] and may be easily identified at both TRUS and mpMRI. The registration performed with our technique usually requires a minute or less and is repeated at every target during the biopsy. The gland is divided in sextant (right/left apex, middle lobe or base of the prostate). Two or three cores are taken for each target. Finally random sampling is performed. We do not re-biopsy a sextant containing a target in order to minimize the total number of cores taken. We maintain a prospective database of the fusion biopsy where findings relative to each sextant are reported.

Statistics:

The objective of the study was to assess the rate of successful registration with our technique. We reviewed retrospectively our internal database. We selected patients who performed fusion prostate biopsy and were eventually submitted to radical prostatectomy in our center. Concordance between mpMRI and radical prostatectomy findings was considered a true positive finding of mpMRI in a specific sextant. Biopsy positivity (at least one core) in the same sextant was considered a successful registration as we never take random biopsies in a sextant with a target. Biopsy positivity in a sextant adjacent to the target was considered a quasi-correct registration. We expected at least 90% and 5% respectively of correct and quasi-correct registration. The Chi-Square goodness of fit test was used to compare measured with expected figures.

Results

Overall, 356 prostate biopsies were performed in our center during 2020 and 2021. Of them, 144 were performed with the fusion technique. 95 were positive. 1 for urothelial carcinoma and 94 for adenocarcinoma of the prostate. Of those 94 patients, 37 underwent radical prostatectomy in our center. Overall, 61 sextants had a PIRADS 3-5 area within. 59 out of 61 was found with cancer after surgery. A positive biopsy was found in 49 cases out of 59. The biopsy was positive in adjacent sextant from the same side in 5 cases, on the same side but not in the adjacent sextant in 3 and the opposite side in 2. The 5 cases with adjacent positivity may be categorized as quasi correct, the remaining 5 wrong registration. Assuming acceptable 90% of correct findings and 5% of quasi correct, expected figures are respectively 53, 3 and 3. The Chi-Square Goodness of Fit Test show a X square value of 2.97 and a p value of 0.23. In other terms, the null hypothesis that the two distributions are homogeneous cannot be rejected

Discussions

Thanks to technological improvement, mpMRI was certainly a major outbreak in the management of prostate cancer. It has become guidelines in a short time span [6]. Rigid fusion technique is recognized to be particularly suitable for office use. Elastic fusion is based on an algorithm that takes into account the deformation of the prostate shape caused by the pression of the probe, rectal and bladder filling volume. Even if it may appear palatable at first glance, it has some major

pitfalls. The registration process interests the whole gland and paradoxically, once performed, it refers to a static model registered in the computer (the so-called contouring) so that even a slight variation of the pressure exerted on the probe and transmitted to the gland or the unvoluntary movement of the patient (during the procedure) may require to repeat it. Moreover, the registration algorithm adjusts mpMRI images to ultrasound scan. It may result in a hampered accuracy of mpMRI at the periphery of the gland. Overall, the risk is to sample outside target, particularly if it is in the anterior peripheral part of the gland, precisely where most of the tumors were missed before the advent of mpMRI. The rigid registration process is much less complicated to be carried out. Basically, it is completed when a real time overlapping of mpMRI and TRUS is obtained. The largest diameter or specific anatomical landmarks are usually identified to perform the registration. However, also rigid registration has some flaws. The scanning angle of ultrasound may vary respect to the cross-sectional imaging of mpMRI. Moreover, there is no compensation for prostate shape deformation, so that it may be difficult to perform correctly the overlapping process. Therefore, it may be difficult to find a unique registration satisfactory for the whole gland volume at the same time. difficult to perform correctly the overlapping process. Therefore, it may be difficult to find a unique registration satisfactory for the whole gland volume at the same time. On the other hand, the registration may be repeated several times during the procedure adjusting for every target area of the prostate or to compensate for patient unintentional movements. Up to now, no significant difference has been found between the two techniques regarding prostate cancer detection rate [2,3]. However, the limits of the elastic and rigid fusion have been clearly addressed in a phantom study [4]. We perform fusion biopsy with a rigid registration system since 2016 (Esaote Virtual Navigator @). During the years of practice, we introduced some tip and tricks to overcome its flaws. First, we recommend performing mpMRI without the aid of an MRI rectal probe which may lead to a signification deformation of the prostate shape during the images acquisition. Second, we suggest performing MRI and biopsy with an empty bladder and rectum to have similar anatomical conditions. Third, registration is performed at the level of the target. To the purpose, the main anatomical landmark of our registration technique is the boundary between periphery and transitional/central zone of the gland which is much less prone to deformation respect to the peripheral contour of the gland [5]. Finally, we repeat the registration for every target at the level of each target within the gland. Finally, we repeat the registration for every target at the level of each target within the gland. Since 2016, we maintain an internal database of fusion prostate biopsy. We registered the presence of suspected area at MRI, results of the biopsy and pathological findings of radical prostatectomy specimens, dividing the prostate in sextants. Since the last update of PIRADS score [7] was introduced in 2019, we considered only procedures of the last two years even if numbers have been clearly hampered by the ongoing pandemic situation. Our objective was to assess the rate of successful registration. We selected sextants from the database where mpMRI and the specimen were both positive. The presence of cancer was certainly a definitive proof of a true positive mpMRI. Then, we assessed if the biopsy in the sextant, the target biopsy (we avoid always random sampling in a sextant with a target) identified cancer as well. The rate was 49/59 implying an efficient registration process in a real-life clinical scenario. Indeed, the success rate is not 100% and therefore random sampling remain crucial to detect prostate cancer. We are aware of the fact the study is retrospective. As a matter of facts, the main bias is that it was not possible to assess the reliability on the patients who were not submitted to radical prostatectomy. Moreover, sextant division of the gland may be an excessive approximation. Indeed the technique results seem interesting.

Conclusion

Our technical modifications to the standard technique has led to an overall satisfying successful rate of correct registration between TRUS and mpMRI

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4. #195: ANALYSIS OF PREDICTORS OF EARLY TRIFECTA ACHIEVEMENT AFTER ROBOT-ASSISTED RADICAL PROSTATECTOMY (RALP) FOR TRAINERS AND EXPERT SURGEONS: RESULTS OF A MULTICENTRIC SERIES

U. Anceschi[1], A. Galfano[2], L. Luciani[3], L. Misuraca[1], S. Albisinni[4], P. Dell'Oglio [2], G. Tuderti[1], A. Brassetti[1], M.C. Ferriero[1], A.M. Bove[1], R. Mastroianni[1], G. Petralia[2], S. Secco[2], E. Di Trapani[2], D. Mattevi[3], M. Puglisi[3], T. Cai [5], T. Quackels[4], G. Malossini[3], A.M. Bocciardi[2], G. Simone [1]

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Objective

Early trifecta achievement remains a critical objective to be evaluated for every surgeon performing robot-assisted radical prostatectomy (RARP), regardless of his experience (1-2). The aim of this multicentric study was to evaluate predictors of 1-year composite outcomes of RARP performed with two different surgical techniques by both trainers and their respective mentors at four tertiary-care centers.

Materials and Methods

Between 2010 and 2020 four institutional prostate-cancer datasets were merged and queried for RARP performed by surgeons during their learning curve (LC; n=16) and respective experts (n=7) using two different-surgical approaches (Retzius-sparing and standard transperitoneal technique, respectively). Surgeons were considered "expert" after performing a caseload of consecutive RARPs >150, while a caseload ≤ 50 procedures was used for the definition of "trainers". Patients with missing data or procedures including pelvic lymphadenectomy were excluded from the analysis. Main demographic, perioperative, pathologic and functional outcomes were analyzed between trainers (n=243) and expert cohorts (n=1078). Perioperative and pathologic outcomes were used to outline two binary variables for the achievement of a "proficiency score" (defined as the coexistence of all following criteria: a comparable intraoperative time to the interquartile range of the experienced surgeon at each center, absence of any significant perioperative complications Clavien-Dindo Grade 3-5, no perioperative blood transfusions, negative surgical margins). Differences between continuous variables were assessed with Wilcoxon rank sum test, while Pearson's $\chi 2$ test was used for categorical data. Logistic binary regression model were built to identify predictors of 1-year trifecta achievement for trainers and the whole cohort, respectively. For all statistical analyses, a two-sided $p < 0.05$ was considered significant.

Results

Interquartile range (IQRs) of all mentors' operative time, serving as proxy for the trainers PS were reported in Table 1. Patients in the trainers group showed significantly increased median operative time, a lower number of nerve-sparing procedures, and a trend toward lower pT stages and positive surgical margins rates, respectively (Table 2). Overall PS was 46.5%. All other variables were comparable between groups (each p>0.1). Continence status, potency, biochemical recurrence and 1-year trifecta rates were comparable between groups (each >p 0.1; Table 2). In the trainer cohort, on multivariable logistic regression analysis, proficiency score (OR =5.40, IC-95% [1.92-15.1], p=0.001) was the only independent predictor of 1-year trifecta achievement (Table 3). In the pooled series series, on multivariate logistic regression analysis, age (OR=0.93; IC-95% [0.91-0.95]; p=0.001), number of consecutive procedures (OR=1; IC-95% [1-1]; p=0.048) and nerve-sparing techniques (OR=2.51; IC-95% [1.28-5.24]; p=0.01) were all significant predictors of 1-year trifecta achievement.

Discussions

Proficiency score achievement was the only independent predictors of 1-year trifecta outcomes in the trainer cohort, while age, nerve-sparing techniques and RALP caseload, were all independent predictors of clinical success in the whole series.

Conclusion

As trainers may duplicate mentors' outcomes during LC at high-volume centers irrespectively of surgical technique, a paradigm shift on trifecta rates may be expected for either a naïve or expert RALP surgeon by increasing number of consecutive procedures (3,4).

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5. #197: CLINICAL CURE VS A NOVEL TRIFECTA SYSTEM FOR EVALUATING LONG-TERM OUTCOMES OF MINIMALLY-INVASIVE PARTIAL OR TOTAL ADRENALECTOMY FOR UNILATERAL PRIMARY ALDOSTERONISM: RESULTS OF A MULTICENTRIC SERIES

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Objective

In order to critically evaluate long-term functional outcomes of adrenal surgery for primary aldosteronism (PA), several predictive scores have been recently conceived. We compared a novel trifecta system that summarizes outcomes of adrenal surgery for Conn' syndrome regardless the surgical technique with the standard clinical cure proposed by Vorselaars (1,2).

Materials and Methods

Between March 2011 and October 2021 a multicenter adrenalectomy dataset was queried for "unilateral adrenal mass" and "primary aldosteronism (PA)" at 4 participating institutions. Baseline demographic, clinical perioperative and functional data were collected. Clinical and biochemical complete, partial and absent success rates according to PASO criteria were assessed for the overall cohort. Trifecta was defined as the coexistence of ≥50% antihypertensive therapeutic intensity score (TIS) reduction (ΔTIS) and no electrolyte impairment at 3-months after surgery, no Clavien-Dindo (2-5) complications. Probability of absent clinical success according to non-achievement of trifecta and clinical failure were estimated by Kaplan-Meier method, respectively. Cox regression analyses were used to identify predictors of long-term clinical success. For all analyses, a two-sided $p<0.05$ was considered significant.

Results

Baseline, perioperative and functional outcomes were summarized in Table 1. Out of 90 patients, at a median follow-up of 42 months (IQR 27-54) a complete, partial, and absent clinical success was observed in 60%, 17.7%, 22.3% of cases while a complete, partial and absent biochemical success was achieved in 83.3%, 12.3%, 4.4% respectively. Overall trifecta and clinical cure rates were 21.1% and 58.9%, respectively (Tab.1). On Kaplan-Meier analysis, both trifecta and clinical failure predicted higher absent clinical success rates (each $p<0.001$; Fig. 1,2). On multivariable Cox regression analysis, trifecta achievement (HR 2.10; 95% CI 1.13-3.90; $p=0.018$) was the only independent predictor of complete clinical success at long-term follow-up (Tab 3-8).

Discussions

Compared to clinical cure, trifecta can be used to differentiate patients who are likely to achieve a stable and complete clinical success after partial and total adrenalectomy from those who will need continuous surveillance after treatment due to persistent or refractory hypertension on the long run

Conclusion

We proposed the introduction of a new algorithm aimed at standardizing early adren-alectomy outcomes for UPA in order to provide mainteinance of blood pressure control, electrolyte balance and surgical quality over time.

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6. #184: TESTIS SPARING SURGERY IN TESTICULAR TUMORS: OUTCOMES OF A SINGLE INSTITUTION EXPERIENCE

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Objective

We present the oncological results of a series of 29 testicular tumors, treated with testis-sparing surgery (TSS) with special regard to the safety of this procedure

Materials and Methods

Between 2005 and 2021, 31 TSSs were performed (in 29 patients) at our department. Five patients were monorchid and one had bilateral cancer. The age ranged from 14 to 83 years (mean= 37.5 years). All patients had tumor marker assessment, inguinal access and frozen section evaluation, associated with biopsies of the surrounding tissue.

Results

Tumor markers were negative in all except 4 patients, in whom they were mildly elevated. Frozen sections showed a stromal tumor in 14 cases, a germ-cell tumor (GCT) in 16 cases and a doubtful lesion in 1 case. Tumor size ranged from 4 to 40 mm (mean=13.1 mm). The definitive histology confirmed the frozen sections findings in 29 out of 31 cases (93.5%): a seminoma in the frozen sections was a Leydig-cell tumor in definitive histology as was the doubtful lesion. None of the 16 patients with stromal tumors had histopathological risk factors and none showed relapse after a mean follow-up of 50.8 (range=3-126) months. Of the 15 cases of GCT, 7 TSSs were imperatively indicated due to solitary testis or synchronous bilateral tumor; 6 of these had also a germ-cell neoplasia in situ (GCNIS): 4 cases received a radiotherapy (RT) while the other two underwent active surveillance (AS). The other 8 cases were elective TSS: tumor size did not exceed 2 cm in 7 cases, and in 1 case it was the wish of the patient. In 2 out of 8 cases, a GCNIS was found: 1 patient (12.5%) underwent immediate orchidectomy while the other one is under AS. All patients underwent regular follow-up [mean 50.6 (range=3-166) months]; 1 of the 3 patients under AS for GCNIS experienced relapse after 20 months and was treated with repeated TSS and RT with the intent to preserve his hormonal production. In another patient with GCNIS under AS, an orchidectomy for endocrine insufficiency was performed after 98 months, without finding relapse. The last patient is still under AS (9 months). Nevertheless 3 out of the 5 patients who underwent imperative TSS needed hormonal replacement therapy, even though the level of testosterone in 2 of these patients was borderline.

Discussions

Testicular cancer represents 1% of male neoplasms and 5% of all urological tumors. Despite its relative low incidence and the lack of data, the survival rate is very high, due to its high chemo- and radio-sensitivity. The EAU guidelines suggest performing an orchiectomy, if a malignant tumor is found on frozen sections, without distinction about the tumor-size; only in case of synchronous bilateral tumors or in solitary testis, when the tumor volume is less than 30% and the level of preoperative testosterone is normal, a TSS cis recommended (1). In the last years the increasing use of ultrasounds has led to an increased number of patients with small testicular cancers, which have a life expectancy as healthy people (2); furthermore, some studies have showed, that even in patients with a normal contralateral testis, the loss of one testis is associated with alterations of fertility, hypogonadism after several years and sexual and psychosocial implications (2,3,4). After the first TSS in a solitary testis, performed from Seppelt in 1982 (5), some case series (6,7,8) and some case reports showed the feasibility and safety of TSS in patients with stromal tumors and in patients with solitary testis or synchronous bilateral tumors with very low rate of recurrence. Based on these good results and considering the possible side effects of an orchiectomy, TSS could be considered as an option, also in patients with normal contralateral testis, in case of intra-parenchimal small testicular masses. Our series showed good oncological outcomes: only 1 patient developed a local recurrence under AS, in presence of GCNIS. Regarding the functional outcomes in our series 21% of the patients required hormonal replacement but we didn't investigate this issue further.

Conclusion

TSS is a safe approach in patients with stromal tumors. In selected cases, an organ-sparing strategy can be offered, after informed consent, in those with small GCT and to patients with normal contralateral testis without compromising the oncological safety in an attempt to preserve endocrine function, fertility and the male body image.

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21 maggio 2022

11:00 - 12:00

sala C

Comunicazioni 9 - Le Pene del "Pene"

Moderatori: Luigi Cormio, Francesco Bottone

1. #178: ARTERIOLOPATIA CALCIFICA UREMICA CON INTERESSAMENTO PENIENO: 2 CASE REPORT E REVISIONE DELLA LETTERATURA

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Objective

La arteriolopatia calcifica uremica (CUA) o calcifilassi è una malattia rara, interessante soprattutto i pazienti con insufficienza renale grave o in dialisi ed è associata ad elevata mortalità, soprattutto a causa di complicanze settiche. Essa porta alla formazione di aree di necrosi cutanea, interessanti addome, arti inferiori, glutei. Qui presentiamo due casi di calcifilassi con interessamento del glande del pene.

Materials and Methods

Sono stati ottenuti i dati clinici di entrambi i pazienti ed è stata eseguita una revisione della letteratura su PubMed utilizzando i termini "penis" e "calciphylaxis".

Results

Case report 1

Un uomo di 75 anni, diabetico tipo 2, con IRC in emodialisi da luglio 2018, cardiopatico ischemico, iperteso e dislipidemico, veniva ricoverato nel novembre 2019 per riscontro di lesione ischemico-necrotica del glande. Nel sospetto di lesione di natura afinalistica, veniva eseguita biopsia della lesione, con istologia deponente per tessuto necrotico ed infiammatorio cronico, senza evidenza di neoplasia. La necrosi peniena progrediva rapidamente con dolore locale. L' ecografia peniena mostrava microcalcificazioni diffuse caverno-spongiose ubiquitarie. Il paziente veniva quindi sottoposto a glandulectomia fino a tessuto sano, veniva posizionato un catetere e il decorso fu privo di ulteriori complicanze. L'esame istologico deponeva per calcifilassi. In gennaio 2020 giungeva alla abituale seduta dialitica in stato settico, con acrocianosi alle dita della mano destra, 4 nuove lesioni agli arti e nuova evidenza di necrosi settica del moncone penieno. Il tampone penieno risultava positivo per E. faecalis e il paziente veniva sottoposto a terapia antibiotica mirata. Sottoposto a sedute emodialitiche supplementari con riduzione del peso secco dimostrava un miglioramento globale. Veniva impostata terapia con sodio tiosolfato endovenoso e penieno intralesionale, finalmente con progressivo miglioramento fino a guarigione clinica in marzo 2020.

Case report 2

Un uomo di 75 anni, affetto da insufficienza renale cronica in dialisi peritoneale da marzo 2018, iperteso, cardiopatico ischemico,

con FA in Warfarin, NIDDM, mieloma multiplo in follow-up, presentava nel novembre 2021 lesioni del polpaccio bilateralmente. Alla biopsia cutanea veniva posta diagnosi di calcifilassi. Sospeso il Warfarin e sostituito con EBPM, si iniziava terapia con infiltrazioni locali di tiosolfato di sodio 1g/10 ml. A breve compariva prurito e arrossamento del glande, e rapida formazione di placca dura biancastra ben demarcata (Fig.1) L'ecografia peniena mostrava plurime millimetriche calcificazioni delle pareti delle arterie cavernose (Fig.2) Nel sospetto clinico di calcifilassi peniena, si avviava trattamento con tiosolfato di sodio intraglandulare alla dose di 1 grammo/10 ml 3 volte a settimana per 3 settimane più 10 sedute di terapia iperbarica, associando successivamente tiosolfato endovena al dosaggio di 10 g/250 ml 3 volte a settimana. Dopo un'iniziale favorevole risposta obiettiva, si rendeva necessaria una toilette chirurgica del tessuto fibrinico e necrotico interessante la spongiosa del glande (Fig.3). Il decorso era complicato da sofferenza ischemica a livello della cicatrice a evoluzione rapidamente necrotizzante che rendeva necessaria un'amputazione parziale (Fig.4-5) Il paziente risulta ancora ricoverato al momento della stesura del relativo "case report", per cui non sono noti gli esiti.

Discussions

L'arteriolopatia calcifica uremica o calcifilassi, riportata con crescente interesse in letteratura, resta una condizione rara, potenzialmente fatale, tipica dei pazienti dializzati. La sua prevalenza è di circa il 4%. La localizzazione peniena è ancora più infrequente. I fattori di rischio risultano essere: iperparatiroidismo secondario con ipocalcemia ed iperfosforemia, sesso femminile, razza caucasica, diabete, IRC, terapia dialitica e sua durata, disordini del metabolismo osseo-calcico, obesità, ipoalbuminemia con malnutrizione e perdita di peso, deficienza proteina C o proteina S, terapia con Warfarin. I pazienti affetti da CUA in più dell'80% dei casi hanno una bassa aspettativa di vita soprattutto a causa delle complicanze infettive che interessano le aree colpite dalla necrosi ischemica. Il termine calcifilassi è stato coniato da Hans Seyle nel 1962, che attraverso modelli animali ha gettato le basi per comprendere questa malattia umana. Dal punto di vista clinico il paziente sviluppa placche cutanee, solitamente molto dolorose, le quali danno origine ad escare ed eventualmente ad ulcere che non guariscono. Gli organi interessati sono arti inferiori, ma anche addome, tronco, interno coscia e genitali esterni. I due casi clinici con localizzazione peniena da noi riportati si aggiungono a quelli presenti in letteratura. Gli esami di laboratorio confermano solitamente il quadro di insufficienza renale e lo squilibrio fosfo-calcico. Ecografia, RX, TAC, arteriografia possono mostrare il severo quadro di calcificazioni vascolari e l'ostruzione al flusso arterioso, ma non sono specifiche. La diagnosi laddove possibile è istologica e si fonda sulla biopsia delle lesioni. Oggi si sa che questa patologia coinvolge una miriade di segnali biochimici e molecolari dell'infiammazione, che alla fine conducono istologicamente a iperplasia intimale, fibrosi endovascolare obliterativa, calcificazione della tonaca media, trombosi cutanea con ischemia e successiva trombosi del derma e del tessuto adiposo sottocutaneo, ulcerazioni cutanee soggette a infezioni e sepsi con inevitabile aumento di morbilità e mortalità. Queste caratteristiche aiutano a differenziare la CUA da altre simili vasculopatie che possono presentarsi come isolate calcificazioni della tonaca media arteriolare e dalla gangrena di Fournier che ha una genesi settica nonché dal cancro del pene. La mancanza di studi clinici randomizzati impedisce di individuare un trattamento ottimale; esso si basa quindi su elementi di fisiopatologia e sull'esperienza fornita della letteratura. Di seguito sono riportati gli approcci essenziali di una terapia che deve comunque mirare ad essere multimodale. La terapia antibiotica è fondamentale nel trattamento della infezione, che è di solito la complicanza letale della necrosi. Essa può essere mirata su tamponi o se empirica deve essere a largo spettro e coprire più possibile Gram-positivi ed anaerobi. Gli analgesici sono utili nel controllo del dolore spesso presente in questi pazienti. E' opportuno correggere il bilancio calcio-fosforo. In caso di iperparatiroidismo secondario è necessario trattare l'ipocalcemia e l'iperfosforemia che ne conseguono; a questo proposito è indicato l'uso di Cinacalcet e dovrebbe essere considerata la paratiroidectomia. Nell'iperparatiroidismo secondario severo, una paratiroidectomia subtotale, comparata a pazienti senza paratiroidectomia, è stata associata a maggiore sopravvivenza a 6 mesi (90% versus 42%) ed a 5 anni (53% versus 11%). Gli antagonisti della vit.K (acenocumarolo, warfarin), favorendo per inibizione di una proteina di membrana della parete delle arterie la precipitazione di calcio, devono essere necessariamente interrotti. Il tiosolfato di sodio è un chelante dei sali di calcio insolubili che si depositano nei tessuti: trasformandosi in tiosolfato di calcio solubile è eliminabile dai reni o dalla dialisi. Inoltre sembra avere effetto antiossidante ed anti-radicali liberi nonchè vasodilatante per interazione con la monossido d'azoto sintetasi (NO-sintetasi) endoteliale. Ne è descritto l'uso a livello sistemico e topico. La camera iperbarica, come nelle grandi ferite, può determinare la guarigione anche nella calcifilassi, determinando proliferazione di fibroblasti, deposizione di collagene e inducendo angiogenesi. La chirurgia ha lo scopo di rimuovere il tessuto necrotico al fine di facilitare la cicatrizzazione. Il tasso di sopravvivenza in caso di lesioni necrotiche infette chirurgicamente trattate si è mostrato del 62%, contro il 27.4% di quelle non chirurgicamente trattate. I bifosfonati, avendo un'azione inibitrice sulla calcificazione attraverso il loro legame ai cristalli di idrossiapatite, pur presentando il rischio di osso adinamico, in un bilancio tra rischi e benefici, possono trovare una indicazione. Tra le terapie sperimentali è descritto l'uso della larva della mosca Lucilia Sericata. Queste larve producono enzimi digestivi capaci di dissolvere il tessuto necrotico, disinfettare la ferita e stimolare la guarigione.

Conclusion

La calcifilassi rappresenta una condizione di calcificazione metastatica tipica dei pazienti con insufficienza renale grave o in trattamento dialitico. Essa è invalidante, mutilante e potenzialmente letale. Il pene può essere un bersaglio della malattia. Il trattamento è multimodale. E' importante correggere i fattori predisponenti e trattare tempestivamente le lesioni sia farmacologicamente sia chirurgicamente. Rimangono ancora spunti di riflessione e ricerca, quali ad esempio sul tiosolfato di sodio un confronto tra via di somministrazione endovenosa e via di somministrazione perilesionale e la stabilizzazione del timing chirurgico più corretto, vale a dire se tempestivo o maggiormente rivolto alle complicanze.

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2. #156: USE OF L-CARNITINE TO IMPROVE SEMINAL PARAMETERS IN INFERTILE PATIENTS WITH IDIOPATHIC OLIGOASTENOTERATOSPEMIA (OAT). OBSERVATIONAL STUDY

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Objective

Infertility affects about 15% of the world's population. This condition is strongly linked to incorrect lifestyles (smoking, alcohol intake, diet rich in fat, reduced or absent physical activity, drug use), advanced age, psycho-physical stress. In the literature, many studies have shown that supplementing with L-Carnitine can improve sperm parameters in infertile patients with idiopathic oligoteratospermia (OAT).

Materials and Methods

For our observational study, 30 patients aged between 35 to 44 who had referred to our Andrology unit to treat infertility were enrolled. The inclusion criterion was a follicle-stimulating hormone (FSH) not exceeding 8mUI/ml, absence of clinically significant varicocele, abstinence from smoking for at least one year, absence of comorbidities and relevant previous surgery, a Body Mass Index (BMI) <30 kg/m2, diagnosis of idiopathic OAT, normal seminal volume, negative semen culture and urine culture. Semen analysis at the time of enrollment and after four months of therapy with L-Carnitine 1000 mg tablets (three times a day administered orally), using an automatic and standardized analyzer according to the WHO laboratory manual for the examination and processing of human semen, fifth edition. Two patients did not complete the study (one patient experienced gastrointestinal disturbances after two days of therapy while another patient gave up because he chose to proceed with Assisted reproductive technology – ART to address infertility).

Results

Total sperm concentration increased by 3.5%, sperm total motility increased by 5.1% and normal sperm forms increased by 1.7% (values expressed as mean differences). Results must be cautiously interpreted due to the limited sample size.

Discussions

In literature, many studies have shown that the use of L-Carnitine can improve sperm quality parameters. Supplements that contain in a balanced formula in addition to L-Carnitine also other antioxidants such as selenium and coenzyme Q10 can improve more the sperm quality parameters, associating a necessary correction of the incorrect habits that are typical of our modern lifestyle.

Conclusion

Our study suggests that a treatment with L-carnitine administered orally at a dose of 3 g / day for 4 months, can determine positive effects on sperm; in particular an improvement in progressive and total sperm motility, an increase in sperm concentration and an enhancement of sperm morphology.

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3. #154: USE OF COLLAGEN PATCH HEMOPATCH IN INDURATIO PENIS PLASTIC (IPP) SURGERY IN PATIENTS CANDIDATE TO PENILE PROSTHETIC IMPLANT. RESULTS AND COMPLICATIONS

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Objective

Evaluation of the results and complications related to the use of the patch during penile prosthetic surgery in patients suffering from Erectile Dysfunction (ED) associated with Induratio Penis Plastica (IPP).

Materials and Methods

From June 2018 to May 2020 we underwent penile prosthesis implantation with simultaneous plaque surgery 43 patients with severe recurvatum (> 60°) and severe ED non-responders to high doses of Prostaglandin E1 (PGE1), using HEMOPATCH. From five years, at our Andrology Unit, we have been using only a hemostatic sealant based on collagen (HEMOPATCH) which, since it does not require an albugin suture, simplifies the technique and reduces surgical times. HEMOPATCH is an advanced hemostatic pad that is composed of a synthetic, protein-reactive monomer and a collagen backing. The active side is covered with a protein-reactive monomer: N-hydroxysuccinimide functionalized polyethylene glycol (NHS-PEG). NHS-PEG rapidly affixes the collagen pad to tissue to promote and maintain hemostasis.

Results

The average age of patients undergoing this surgical technique was 62.3 years. The onset of complications related to the patch were assessed on the 7th, 14th and 28th postoperative day classified as: dislocation, seroma, hematoma, allergic reaction or foreign body type and adhesions to the dartos or subcutis. The overall incidence of complications was approximately 21%. We have recorded 2 seromas, 3 local inflammatory reactions of a foreign body type and 2 cases of adherence to dartos. Patch dislocation with barrel extrusion was not suspected or verified in no patient and therefore no surgical revisions were performed.

Discussions

The use of bovine pericardium xenograft in plaque surgery contextual to a penile prosthetic implant is supported by numerous advantages: unlimited availability, use independent of the extent of the tissue defect, excellent tolerance and low risk of infection.

Conclusion

The overall incidence of complications was approximately 21%. We have recorded 2 seromas, 3 local inflammatory reactions of a foreign body type and 2 cases of adherence to dartos. Patch dislocation with barrel extrusion was not suspected or verified in no patient and therefore no surgical revisions were performed.

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4. #162: FOURNIER'S GANGRENE SINGLE INSTITUTION EXPERIENCE 2013-2021

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Objective

Necrotizing infections are the most severe class of skin and soft tissue infections (class IV), defined as being life-threatening and often requiring admission to an intensive care unit (ICU). Fournier's gangrene (FG) is a necrotizing infection of the genitalia. Studies involving Fournier's gangrene reveal that approximately 10% of patients require mechanical ventilation and 1.4% need

dialysis

Materials and Methods

We reviewed retrospectively the data of 16 patients treated primarily or followed in our center between 2013 and 2021. All patients received immediate surgically debridement, wide spectrum intravenous antibiotics and later tissue or blood bacteria targeted antibiotics therapy and hyperbaric oxygen therapy (HOBT).

Results

The median age was 66.3 years old range(46-91 y). The mean hospital stay of patients was 16 days (range 18-25 days). Diabete mellitus was present in 13 patients, 9 patients were HCV + and 2 patients were indwelling catheter. The defects were treated primarily in 14 cases with second wound closure and in 2 cases with a skin flap. The septic state was properly treated in all the cases and the mortality rate of FG was 2/16(12,5%) due in both cases to myocardial ischemia. No patients required dialysis.

Discussions

The predisposing and etiologic factors of FG provide a favorable environment for the infection allowing a portal of entry for the microorganism into the perineum (1). The polymicrobial infection of aerobic and anaerobic bacteria in FG patients is necessary to create rapidly progressive gangrene with the production of various exotoxins. (2) The pathogenesis involves a complex response of cellular activation that triggers the release of a multitude of pro-inflammatory mediators and the production of the production of various exotoxins and enzymes like collagenase, heparinase, hyaluronidase, streptokinase and streptodornase. In this scenario time to surgical management of FG is a critical determining factor of mortality rate to stop the progression of subcutaneous anaerobic diffusion of the necrosis locally. The extent of necrotic tissue resection, until viable tissue is reached, should guide the surgeon as the aim to be achieved during the surgical procedure. At the some time wide spectrum intravenous antibiotics and later tissue or blood bacteria targeted antibiotics represent a key factor allowing to treat the bacterial infection. In fact, multiple studies have suggested that intravenous antibiotics should be initiated within the first hour following recognition of sepsis or septic shock, and increasing delays in time to administration were directly cor-elated with an increase in mortality.(3) Third aspect is related to HBO. HOBT has a direct antibacterial effect on anaerobes where the activity of endotoxins is reduced in the presence of high tissue levels of oxygen. The positive effects include improved phagocytic action of neutrophils, increased proliferation of fibroblasts and angiogenesis, reduced edema due to vasoconstriction, increased intracellular antibiotic transport and oxygen-free radical synthesis (5).

Conclusion

FG represents a very aggressive clinical scenario that requires immediate treatment involving local surgical approach and systemic treatments. T

The multimodal approach therefore represents a fundamental point in the treatment of this pathology which often requires the transfer to multi-specialty centers that allow immediate and comprehensive treatment. The mortality rate in this scenario can greatly reduce

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5. #151: MRI-CAVERNOSOGRAPHY: A NEW DIAGNOSTIC TOOL FOR ERECTILE DYSFUNCTION DUE TO VENOUS LEAKAGE. LEARNING OBJECTIVES

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Objective

This study evaluated the efficacy of MRI-Cavernosography / Cavernosa-MRI (Cav-MRI) to investigate erectile dysfunction due to venous leakage and if it can be considered a valid level II andrological diagnostic method, compared to CT-Cavernosography.

Materials and Methods

A 21G needle-cannula is inserted into the dorsal side of one corporus cavernosum and 20mg of prostaglandin E1 are administered. Erection degree is assessed using EHS score. Once penis is fully erected (grades 3-4), another 21G needle-cannula is inserted into controlateral corpus cavernosum, in which are then administrated 1cc of paramagnetic contrast agent, using 20cc isotonic physiological solution, at an infusion rate of 1,5 mL/sec. Once erection is obtained, multiplanar T2- weighted imaging, axial T2-weighted fat suppressed imaging and axial 3D fat-suppressed spoiled GRE T1-weighted sequence are performed before

cavernosum contrast injections. Then, contrast agent is introduced into one of the corpora cavernosa within 1 min. Sequential 3D fat-suppressed spoiled GRE T1-weighted post-contrast sequence with full-FOV imaging through the penis and pelvis are carried out for about 50 such acquisitions consecutively, with the contrast material automatically infused resulting a dynamic-cavernosum enhancement acquisition lasting about 5 minutes. Patients are held under observation until the end of penile erection.

Results

MRI with its excellent soft-tissue contrast and good spatial resolution, is increasingly problem-solving imaging modality for the penis. Cav-MRI clearly identifies anatomic structures involved in veno-occlusive leakage, including the deep dorsal vein, emissary veins, veins of the periprostatic plexus of Santorini and deep draining veins.

Discussions

Erectile dysfunction is a common sexual disorder: its incidence increases with advanced age, despite a prevalence in 1-10% of men younger than 40 years has long been reported. Substantial advances have occurred in the understanding of the pathophysiology of impotence, involving penile hemodynamic and embraces arterial insufficiency, veno-occlusive dysfunction or mixed arterial and venous dysfunctions. Failure of adequate venous occlusion, with early venous leakage, has been recognized as one of the most common causes of vasculogenic impotence in young patients. In patients with the confirmed diagnosis of venogenic erectile dysfunction, without arterial hypofunctions, it is possible perform a deep dorsal vein (DDV) ligation surgery.

Conclusion

Cav-MRI represents a promising, useful, radiation-free alternative imaging modality for an accurate pre-operative evaluation of venogenic erectile dysfunction. It could replace CT-Cavernosography as standard second-level imaging option, providing high-resolution detailed images of venous drainage and eventual venous leakage, obviating the exposure of young patients to ionizing radiation.

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6. #155: CAUSES OF DISSATISFACTION AFTER PENILE PROSTHESIS IMPLANTATION IN THE ABSENCE OF MAJOR COMPLICATIONS: RETROSPECTIVE STUDY

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Objective

Identification of the main dissatisfaction factors in terms of incidence and impact for the development of pre-, intra- and post-operative prevention strategies.

Materials and Methods

Retrospective study on 120 patients who underwent three-component penile prosthesis implantation between May 2016 and June 2020 at our Andrology unit. A single operator administered a structured interview six months after surgery using the following items: 1) interview with closed question on the satisfaction of the patient and the partner (yes / no), 2) Sexual Encounter Profile (SEP) log diary, answer to question number 2 (SEP 2) and number 3 (SEP 3); Sexual Quality of Life- Men (SQOL-M) questionnaire. 95 patients participated in the interview (16 patients refused the interview, 4 patients did not respond to the contact details in the medical record, 4 patients did not accept due to comorbidities, one patient died).

Results

The overall satisfaction coefficient was 88.4%. the mean QOL by SQOL-M questionnaire was 4.7 ± 1.10 on a scale of 0 to 6. In patients who did not suffer from major complications, the main factor of dissatisfaction was the reduction in penis size. The subjective reduction in penile length was reported by approximately 20% of the patients interviewed with a significant impact on the satisfaction coefficient ($p < 0.005$). Other causes of dissatisfaction are post-operative pain (10.8%), hypermobility of the glans

(4.8%) and glans / penile hypoesthesia (1.8%).

Discussions

Numerous factors influence the level of patient satisfaction following penile prosthesis implantation: excessive pre-operative expectations despite the extensive discussion on the method carried out with various interviews with the patient, post-operative complications, partner satisfaction and perceived sexual inadequacy (volumetric reduction penis in erection, poor glans stiffness and reduced sensitivity).

Conclusion

The three-component penile prosthetic implant used for the treatment of severe erectile dysfunction has a high approval rating in a high percentage of patients (about 90%). Careful prevention in all pre-, intra- and post-operative phases of the main dissatisfaction factors consisting mainly of the reduction in real or perceived volume of the organ, post-operative pain and hypermobility in the glans is essential.

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7. #132: LOW-INTENSITY EXTRACORPOREAL SHOCKWAVE THERAPY (LI-ESWT) FOR PEYRONIE'S DISEASE: A 4 YEAR SINGLE CENTER EXPERIENCE

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Objective

The aim of this study is to evaluate the low-intensity extracorporeal shock wave therapy (li-ESWT) efficacy using the HMT Orthogold 100 lithotripter in treating Peyronie's disease based on parameters such as penile curvature, erectile function and penile pain during erection.

Materials and Methods

120 patients from our clinical institute were selected from January 2018 to December 2021. The mean disease duration was 21 months (6 – 60 months). All patients were no-responders to medical oral therapy. Before and after treatment, the angle was calculated through self-photography after an erection induced by a vacuum device and we were able to evaluate the pain intensity during the erection using the Wong – Baker visual pain analog scale or the Facies Pain Scale (0 – 10). The International Index of Erectile Function (IIEF-V) was used for erectile dysfunction (ED). All patients had at least one symptom, i.e. 78 patients experienced pain during erection (with a pain average on the visual scale from 6 to 8); 113 patients had a mean angulation of 42 degrees (with a range between 15 degrees and 55 degrees); while 56 patients presented a mild to moderate erectile dysfunction (IIEF-V between 10 and 18). The HMT Orthogold 100 lithotripter was adopted for the treatment. The plaque was localized through clinical palpation and a fast ultrasound scan. The mean follow-up was 9 months (range 6 – 12 months). Each patient received at least one li-ESWT session (3000 shock waves, 7 kJ) applied to a flaccid penis, i.e. one treatment per week for 6 weeks. Each treatment lasted about 10 minutes.

Results

All patients completed the protocol. Tolerance and safety proved to be excellent, in line with International statistics.
Of the 78 patients who experienced pain during erection, 69 (89%) reported immediate relief after li-ESWT (with a mean pain reduction of 2.9 on the visual pain scale, equal to a $p<0.00001$). For 42 patients (37%) an improvement in angulation was observed (greater than 5 degrees), with a mean reduction of 20 degrees ($P<0.001$). For patients affected by erectile dysfunction, 43 (77%) had a higher Questionnaire score (greater than 4 points). Finally, 35 patients (31%) reported the plaque was subjectively smoother compared to that at the beginning of treatment.

Discussions

In our experience, low-intensity extracorporeal shockwave therapy performed with a HMT Orthogold 100 lithotripter for the treatment of Peyronie's disease has proven to be a feasible, reproducible, painless, safe and an effective treatment for reducing pain during erection. This technique demonstrated an improvement in the penile curvature and also confirmed that low intensity shock waves are an effective support when treating mild to moderate erectile deficit.

Conclusion

Extracorporeal shock wave therapy may be helpful in Peyronie's disease management for refractory penile pain and reduction in plaque size. However, penile pain typically resolves spontaneously over time, and shock wave therapy can be a significant financial burden for patients. A multi-institutional randomized controlled trial with standardized methods and strict inclusion criteria regarding disease duration would be useful to determine the true efficacy of shock waves therapy in Peyronie's disease.

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8. #28: "WHAT DO OUR BOYS KNOW ABOUT SEX?". ASSESSMENT OF SEXUAL KNOWLEDGE OF ADOLESCENTS USING A NEW SURVEY; ONE YEAR LATER

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Objective

The sexual health of adolescents is an especially important issue for national health policies. Young people, in fact, are at elevated risk for adverse sexual and reproductive health outcomes relative to their habits, sexually transmitted infections (STIs), sexual behaviour and teenage pregnancy (1). Several studies demonstrated that an adequate education about human sexuality and sexual health provided by parents, physicians, teachers and other professionals was important to help adolescents make aware, safe and positive choices about responsible sexual activity and their sexual health (2). Despite this, sexuality teaching is not widespread in all the schools. Furthermore, the effectiveness of these interventions remains unclear, especially regarding long term outcomes. The aim of this study was to assess the knowledge about sexuality of adolescents under the age of 18. Moreover, we aimed to explore the influence of sex education on sexual knowledge and behaviour after one year.

Materials and Methods

The participants were enrolled during a cultural exchange project in September 2019. The survey consisted of three parts. The first part concerned generic anthropometric data and a subjective evaluation of the personal knowledge of sexuality and sexual health. The second part contained questions concerning knowledge of the male and female genitourinary system, physiology of reproduction, meaning of terms concerning the sexual sphere, contraceptive methods and sexually transmitted infections. The third part questioned the participants about personal sexual habits. After completing the questionnaire, all students took part in a sex education course performed by an urologist with expertise in sociology and psychology. The course was divided into two lessons of three hours each. The participants repeated the same survey in a web form in September 2020, one year after the course. An email was sent to all students who participated in the first part of the study. All data were collected in a prospectively maintained database and were retrospectively analysed. Frequencies and proportions were reported for categorical variables, while mean and standard deviation (±SD) were calculated for continuous variables. Yates's chi-squared test (X2) was used to compare the statistical significance of differences in proportions. Statistical analyses were performed using SPSS version 23.0 (IBM Corp., Armonk, NY, USA), considering statistical significance as a p-value < 0.05.

Results

Of the 80 participants (mean age 15.46 ± 1.484 years) who completed the survey, 40 (50%) were female, and 40 (50%) were male. We did not report cases of drop-outs. In fact, all the adolescents who participated to the survey in 2019 completed the questionnaire in 2020 and were enrolled in the study. We noticed a significantly increase in the percentage of right answer in the following questions (e.g.: "The scrotum contains . . . "; "It is legally possible to change sex?"; The fertile days of the cycle are those . . . "; "Indicate among the following the behaviour that increases the risk of contracting a sexually transmitted disease"; "Fertilization is . . . "; "The urethra in the male is . . . "; "Sexually transmitted diseases are . . . "; "Heterosexuality means . . . "; "Menstruation is . . . " and "Orgasm means . . . "). Moreover, we noticed a significant increase in participants reporting a high knowledge of the topic (30% vs. 15%). Furthermore, after one year, we observed an increase in the importance of school as the main source of sex education (20% vs. 5%), while the importance of the internet and the family showed no significant changes. In 2020, also, the percentage of adolescents who talked about sex increased significantly. Finally, we found an improvement in the use of contraceptive methods.

Discussions

The survey presented in this paper provides new and interesting data about the knowledge of sexuality of European adolescents, underlining the importance of national health policies. Analysing our data, we noticed that, at the baseline, 23.75% of adolescents believed they had poor (20%) or inadequate (3.75%) knowledge of sexuality. After one year, this percentage fell to 2.5% and 1.25%, respectively. On the other hand, the percentage of participants who reported high knowledge of sexuality increased significantly. This data could indicate that sex education lessons helped to improve student confidence in approaching these issues. Moreover, the main source for information about sexuality changed after one year. Particularly, we observed a significantly increase in the importance of school, while the role of the internet, media and family remained stable (3). We hypothesize that the course encouraged students to discuss these issues with teachers and not only with friends and family. Analysing the data of the questionnaire, we noticed that, in 2020, there was an increase in the number of correct answers in 24 questions out of 26, with a

statistically significant difference in nine out of 24. Furthermore, subjects who used contraceptives increased and we noticed an increase in the number of sexually active subjects and adolescents with a stable partner. We hypothesized that, despite its short duration, the course contributed to increase the knowledge of sexual health themes and positively influenced the sexual habits and behaviours of the participants. In terms of clinical implications, our data highlighted important topics related to sexuality that needed to be addressed and discussed with adolescents seeking help to overcome sexual difficulties.

Conclusion

We believed that sexual health education in schools could play a major role in the sexual health development of adolescents, and may reduce future adverse sexual and reproductive problems, such as sexually transmitted infections or unplanned pregnancies. This study encouraged the introduction of school-based sexual education policies, pointing to opportunities for structural and early intervention programs.

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