42° CONGRESSO NAZIONALE SIUD

16° CONGRESSO Fisioterapisti, Infermieri, Ostetriche

Stazione Marittima, Napoli - 7-9 Giugno 2018

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RACCOLTA

E - POSTER NON DISCUSSI

59 - Quality of life in women with advanced pelvic organ prolapse treated with Gellhorn pessary

Stefania Palmieri[(1)], Alice Cola[(1)], Rodolfo Milani[(1)], Stefano Manodoro[(2)], Matteo Frigerio[(1)]

Ospedale San Gerardo, ASST Monza e Brianza, Università Milano Bicocca[(1)] - AUSL Romagna, Ospedale Infermi, Rimini, Italy [(2)]

INTRODUCTION AND AIM OF THE STUDY

Pelvic organ prolapse (POP) is a common pelvic floor dysfunction affecting especially older women.

Vaginal pessaries are considered a first line conservative treatment for pelvic organ prolapse. Gellhorn pessary, is commonly used in those patients who fail to retain a ring pessary and, no matter the high effectiveness of this kind of pessaries, their use is often discontinous due to higher difficulties and patients discomfort during positioning, removal and mantainance. The aim of the study was to evaluate, in a cohort of patients with advanced genital prolapse, discontinuation rate, satisfaction and quality of life associated with the use of gellhorn pessaries.

MATERIALS AND METHODS

Cross-sectional study, including patients in conservative treatment of POP with a gellhorn pessary in 2017. Baseline quality of life was assessed by the Italian version of the EuroQol 5D (EQ-5D) Questionnaire, and the first two items of the Italian version of the Prolapse Quality of Life (P-QOL) Questionnaire. Every year follow-up visit included the collection of EQ-5D Questionnaire, the first two items of the P-QOL Questionnaire and the and Patient Global Impression of Improvement (PGI-I) Questionnaire.

Statistics: Student T-test for continuous parametric data, Wilcoxon test for continuous non-parametric data and Pearson's chi-square test for non-continuous data. A $p<0.05$ was considered statistically significant.

RESULTS

10 patients were included. Population characteristics and prolapse' s stage are shown in Table 1. Discontinuation of therapy was required by one patient (10%). Mean therapy duration was 2.5 ± 2.0 years. The mean number of vaginal erosion during the whole therapy was 0.7 ± 0.9, while the mean of vaginitis was 0.3 ± 0.5. No other complications occurred. The median measure of the Gellhorn pessary was 3.5 inches. Comparison between baseline and follow-up quality of life questionnaire scores are reported in Table 2. PGI-I score resulted in a satisfactory score of 1.3 ± 0.5.

INTERPRETATION OF RESULTS

According to the literature, our study shows that gellhorn pessaries may be successfully used in those patients with advanced POP, wide genital hiatus and who underwent a previous hysterectomy, i.e. patients who are more likely to fail treatment with ring pessaries.

Moreover, our foundings of a mean duration of therapy of 2.5 years and low discontinuation rate (10%) are also in line with the evidence that Gellhorn pessary seems to be associated with significantly longer use than all other pessary types, once successfully fitted.

According to our data, Gellhorn pessary was well tolerated, and was associated with a significant improvement in prolapse-associated discomfort and global health perception. Lastly, PGI-I score showed a satisfactory increase in Patient Global Impression of Improvement associated with Gellhorn pessary's use.

CONCLUSIONS

Our study confirms, that gellhorn pessaries may be successfully used in patients who fail to retain ring pessaries. Moreover, gellhorn's use, was associated with a significant improvement in specific and generic quality of life domains, as well as a satisfactory perceived impression of improvement.

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Table 1

Population characteristics and anatomic examination according to POP-Q. Continuous data as mean ± standard deviation. Non continuous data as median (interquantile range)

60 - Climacturia: true or false? A problem to inquire after radical prostatectomy

C. Polito[(1)], M. Lencioni[(1)], A.Tognarelli[(1)], T. Di Vico[(1)], D. Pistolesi[(1)]

Urology Unit, Department Of Translational Medicine And New Technologies, University Of Pisa, Italy, Pisa [(1)]

INTRODUCTION AND AIM OF THE STUDY

Climacturia, or orgasm-associated incontinence, is a common consequence of radical prostatectomy due to the disruption of the anatomical and nervous structures involved in continence. This is a very stressful symptom and causes great discomfort for the patient and his partner, so that patients themselves are often embarassed in talking about their problem with the clinician. Some urologists, unfortunately, on the other side, often don't ask patients about climacturia and this creates an important lack in the complete and multimodal management approach to patients' follow-up after radical prostatectomy. We analized data from our Centre searching how much climacturia is frequent among patients who uderwent robotic-assisted or open retropubic radical prostatectomy, how much it impacts QoL and functional outcomes and in which way it is linked with other variables and patient-related factors. The aim of this study is to focus on climacturia as a symptom to search just from the beginning of sexual and continence recovery strategies, in order to ameliorate functional outcomes of these patients and compliance to oncological follow-up. In addition, we wanted to stress attention on clinical, surgical, pathological and pre- and post-operative functional elements in order to identify some risk factors for development of post-operative climacturia, so to better plan a patient-tailored rehabilitation program and adequate pre-operative counselling for those of them interested in achieving a satisfactory sexual recovery, maybe also including symptom climacturia as an item in a new questionnaire for assessment of PPI.

MATERIALS AND METHODS

Analizing data from clinical past documentation and from phone interviews, we searched, among 96 patients who underwent RALP and among 57 patients who underwent open RP (RRP) from 2008 to 2016, the prevalence of climacturia at 2 to 10 years follow up and we related it with some different pre- and post-operative functional, oncological and clinical factors. We selected patients who are potent or have satisfactory drug-assisted erection after a 12-months follow up. We considered as having climacturia patients who explicitly answered "yes" to the clinician's question "do you ever leaked during orgasm?", we instead distinguished patients who reported "urine leaks during sexual activity" as having "false climacturia" from ones who don't have climacturia at all. At the end we identified patient who are completely continent (id est "0 pad") and those who are not, including in such category all forms of urine leakage, from the occasionally one to the severe one.

RESULTS

We found that among potent patients who underwent RALP 2 have climacturia versus 1 post-RRP patient. All these patients are still in functional regular follow-up and practice PFMT correctly, starting early postoperatively day, at the removal of urethral catheter. Climacturic patients have low voided volumes at follow-up uroflowmetry. All are regularly followed in andrological outpatient setting.

INTERPRETATION OF RESULTS

According to scientific international literature climacturia occurs in about 20% of patients after radical prostatectomy. In our study we found similar results including both true climacturia and false climacturia, with rates of 21% for RALP patients and 5% of RRP patients. This result can, at a first sight, appear as contradictory, considering the technical advantages offered by robotic-assisted surgery in theme of functional preservation. However, if we consider the overall continence status of patients, we found that RALP patients achieve better functional outcomes, with a number of totally continent patients (= 0 pad) significantly superior

in comparison to RRP patients. Instead, among open RP patients, we have more cases of severe post-operative incontinence.

CONCLUSIONS

Climacturia is a symptom who impacts consistently QoL of patients who undergo RP surgery. It's a symptom to be systematically searched by urologists and andrologists because it relates with worse compliance of patients to regular functional follow-up but also to oncological one. A greater attention paid to this problem will be able to follow in a better way these patients, achieving at the same time better compliance to even oncological adjuvant treatment. So we recommend to screen patients for climacturia early at the time of prostate biopsy, to assess at the same time erectile function and preoperative continence status, so to focus to rehabilitation program as early as at the visit at the time of removal of the bladder catheter after cistography.

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Pelvic floor muscle training for erectile dysfunction and climacturia 1 year after nerve sparing radical prostatectomy: a randomized controlled trial. Geraerts I, M. Int J Impot Res. 2016 Jan-Feb;28(1):9-13.

61 - EFFECTS OF ADVANCE MALE SLING ON SEXUAL FUNCTION IN PATIENTS WITH STRESS URINARY INCONTINENCE AFTER RADICAL PROSTATECTOMY

T. Di Vico[(1)], A. Tognarelli[(1)], C. Polito[(1)], J. Durante[(1)], M. Lencioni, C. Gozzi[(1)], D. Pistolesi[(1)]

Urology Unit, Department Of Translational Medicine And New Technologies, University Of Pisa, Italy, Pisa [(1)]

INTRODUCTION AND AIM OF THE STUDY

Sexual function impairment and stress urinary incontinence (SUI) are common complications of radical prostatectomy, with an incidence of 49% and 16% respectively. Moreover, in a percentage of patients, these two conditions coexist. Urinary incontinence is defined as the use of at least 2 pads a day and its therapy relies upon oral drugs like duloxetine, pelvic floor muscle training and surgery (implant of urethral slings or artificial sphincters). Sexual function is evaluated with the International Index Erectile Function–5 (IIEF-5) questionnaire: with a score of 22-25 points, erectile function is considered normal. Therapy of erectile dysfunction is currently based on oral administration of phosphodiesterase type 5 inhibitors – PDE5i (such as sildenafil, tadalafil and vardenafil) or injection into the corpora cavernosa of prostaglandin E1 (alprostadil). Aim of our study is to evaluate the impact of surgical correction of urinary incontinence (AdVance Male Sling) on sexual activity in patients affected by erectile dysfunction and stress urinary incontinence after radical prostatectomy.

MATERIALS AND METHODS

We have selected seventeen patients (mean age at the time of last interview: 70.8 years) undergone to positioning of AdVance Male Sling in the period April 2014 - October 2017, at a mean time of 36.1 months after radical prostatectomy (all patients have achieved urinary continence after sling positioning). This group of patients had developed stress urinary incontinence and erectile dysfunction after radical prostatectomy (seven radical retropubic prostatectomy and ten robotic-assisted laparoscopic radical prostatectomy). Every patient had started a sexual rehabilitation course with Tadalafil one month after prostatectomy. We have utilized IIEF-5 questionnaire to investigate erectile function before prostatectomy, 12 months after prostatectomy and at a mean time of 20 months after Advance Male Sling positioning. 24-hours pad test was performed in all patients to confirm urinary continence.

RESULTS

All patients are continent at a mean time of 20 months after sling positioning.

Mean IIEF5 score resulted 20.5 points before prostatectomy, 7.5 points after prostatectomy and 10.4 points after sling positioning (mean improvement of 2.9 points).

INTERPRETATION OF RESULTS

Data collected in our study show how the achievement of urinary continence, in association with PDE5i, improves IIEF5 score. In fact, according to literature, urinary incontinence has a negative impact on sexual activity.

CONCLUSIONS

Our study shows a beneficial effect of anti-incontinence surgery on erectile function, measured with IIEF5 score. We can suppose that continent patients achieve a higher self-confidence, which could be responsible for a better approach to the sexual partner. Nowadays we don't know if the mechanic action of the sling

plays an important role on structures involved in erectile function; we can hypothesize a reduction of venous drainage from corpora cavernosa due to the presence of the sling.

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62 - A novel method to assess post prostatectomy - SUI: a 24-hour urocondom test

Nicola Caria, Giuseppe De Vita, Elisabetta Contini, Antonello De Lisa, Ignazio Montisci, Giuliana Campus

Unità Spinale Unipolare –Ospedale Marino -Università degli studi di Cagliari –Clinica Urologica Ospedale S.S. Trinità di Cagliari

INTRODUCTION AND AIM OF THE STUDY

Male stress urinary incontinence is a well-know complication of BPH and prostate cancer surgical treatment. The aim of this study is to compare clinical usefulness of 24h urine amount collected through penile sheats (urocondom) with a graduated urine bag versus ICS 24 hour-pad test to assess the severity of stress urinary incontinence in male patients who underwent prostate surgery.

The severity of SUI can be assessed with the use of the pad-test, the number of daily pad used by the patient, and the urodynamic evaluation of the Valsalva Leak Point Pressure.

The degree of stress postoperative incontinence plays a crucial role in clinical decision making for follow-up and further treatment of incontinence (e.g. slings or artificial sphincter).

Otherwise, urinary incontinence is an objective sign but has a strong element of subjectivity. Some patients complain about urine leakage or fear of losing urine but in most of the case, there isn't a clinical objective data of urine loss. Besides patients may use different kind and size of pads, with different absorbing power and also a single patient may change the pad after the loss of a few amount of urine because of the different feeling of wet in their pad. So in clinical practice, the use of pads to assess the severity of SUI in male patients is not often reliable.

MATERIALS AND METHODS

We enrolled 40 patients who underwent radical prostatectomy by a single surgeon from 2015 to 2017, assessing urinary incontinence respectively with a 24-hour ICS standardized pad test and a 24-hour urine volume collected with uro-sheats after the first month after surgery with an interval of one week between two test. Patients also completed a 72-hour micturition urinary diary and reported the incontinence-related symptoms with Incontinence Impact Questionnaire – Short form IIQ-7 in order to assess the reliability of the amount of urine collected with the severity of incontinence symptoms.

The test-retest reliability was analyzed with Lin's concordance correlation coefficient (CCC) using a cut-off value of 0,6 assessing reliability of the re-test.

RESULTS

Data assessed with 24-hour urocondom test were correlated significantly with both the questionnaire ($r = 0.6748$; $p < 0.001$) and the 24-hour pad test (ICS; $r = 0.6829$; $p < 0.001$).

INTERPRETATION OF RESULTS

The use of urocondom was highly tolerated by patients with no discomfort during the test.

The 24-hour urocondom test is a valid alternative to the 24-ICS pad test in assessing the degree of stress incontinence in male patients, as well as being more practical to use. The urocondom test also has a significative correlation between the symptom score and the amount of urine collected in 24h.

CONCLUSIONS

The 24-hour urocondom test qualified as a reliable, cost-effective and noninvasive tool which can easily be applied in urologic or physiotherapeutic practice to assess post-prostatectomy urinary incontinence and its severity and also help clinical decision making to further surgical incontinence treatment and to evaluate the success of this approaches. Further RCT and a wider patients case studies should confirm the reliability of this test.

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63 - Comparing functional, perioperative and safety outcomes of anatomical laser vaporization and holmium laser enucleation in medium to high-volume prostates: a single-centre, retrospective analysis

P. Minafra[(1)], G.De Rienzo[(2)], M. Vulpi[(1)], F. Di Modugno[(1)], U. Carbonara[(1)], M. Fanelli[(1)], P. Ditonno[(1)]

Università di Bari "Aldo Moro", DETO, Bari, Italy[(1)] - Azienda Ospedaliera Consorziale Policlinico, Bari, Italy[(2)]

INTRODUCTION AND AIM OF THE STUDY

In recent years several surgical treatments for BPH have been introduced, showing similar efficacy when compared to the gold standard, TURP. Prostate volume is a main factor in choosing the technique: small to medium sized glands can be treated by TURP, photoselective vaporization (PVP) and holmium enucleation (HoLEP) with similar efficacy, but HoLEP needs longer operative time; in larger prostates, TURP may have higher complication rates and there are scant evidences about standard PVP, therefore enucleative techniques represent nowadays the best option.

Greenlight laser technology improved in recent years, from 80W to 180W XPS LBO laser. Gomez Sancha first described the ductility of this tool, allowing surgeons to choose between standard or anatomical vaporization (aPVP), or even enucleation. A recent comparison analysis between Greenlight laser surgical options highlighted that aPVP, even in larger glands, provides the best balance between functional outcomes and complications. By anatomical approach the surgeon can easily recognize the adenoma-capsule cleavage, reducing the possibility to cause capsule perforation or leave residual adenomatous tissue behind.

Primary aim of this study was to compare functional outcomes in patients with BPH-related BOO and average to high-volume prostates, undergoing aPVP or HoLEP. Secondary aims were perioperative outcomes and safety profile of these procedures.

MATERIALS AND METHODS

This single-centre retrospective experience included males treated for LUTS caused by BPH. We enrolled patients with prostate volumes ≤100ml, estimated by US. The preoperative maximum urinary-flow rate (Qmax), post-void residual volume (PVR), prostatic specific antigens (PSA), international prostate symptom score (IPSS), quality of life (QOL), hemoglobin (Hb) and hematocrit (Ht) were assessed in all patients. Early postoperative and follow-up data were compared with baseline recordings; all complications were reported, according to Clavien-Dindo classification. Perioperative data included blood loss evaluation, operative length, catheterization time, hospital stay. Statistical analysis: T-Student and chi-square were performed to compare baseline characteristics of the two groups, 2way ANOVA for repeated measures to evaluate the effect of treatments, Log Rank test to compare time variables in the two groups.

RESULTS

96 patients were included, 53 underwent PVP and 43 HoLEP. Mean prostate volume at US was 58,8 vs 65,1 ml (p=0,069), respectively. In both groups patients had similar characteristics in every field explored, but lower baseline PSA in the PVP group (2,9 vs 7,1 ng/ml, p=0,017).

At 6 months, were recorded similar and significant Qmax, PVR and IPSS improvement from the baseline (time effect: F=66,534 p≤0,001; F=56,040 p≤0,001; F=109,553 p≤0,001). QOL improved in both groups, with better ΔQOL for PVP (time effect: F=83,689 p≤0,0015; time*treatment effect: F=0,886 p=0,019). The lowest postoperative PSA decreased when compared to baseline and it was similar in the two groups, with higher ΔPSA in the HoLEP group (time effect: F=30,081 p≤0,001; time*treatment effect: F=6,685 p=0,012).

PVP had shorter operative time (median: 60 vs 90m; p ≤ 0,001), similar catheterization time (48 vs 68h; p = 0,849) and hospital stay (54 vs 75h p = 0,106). Postoperative Ht and Hb dicrease was similar in both groups.

We failed to find differences between two groups in: early complications, early stress incontinence (SUI) urge incontinence (UUI) and OAB symptoms rate. Moreover, no differences were found at 6 months in overall complications, SUI and OAB symptoms rate, except for UUI, only present in HoLEP patients (p=0,034).

INTERPRETATION OF RESULTS

In our experience, in a subset of patients with medium prostate volume, aPVP and HoLEP showed similar functional and subjective outcomes. Since PVP doesn't allow a direct measurement of ablated tissue, we considered the nadir PSA at follow-up as a surrogate measure for residual prostate tissue and ablative power of the method. HoLEP and aPVP showed similar complication rates after surgery and at follow-up, expecially when observing the incidence of SUI. This suggests that SUI could relate more with the higher amount of ablated tissue when applying anatomical techniques, than other factors such as laser type. The vast majority of reported complications are grade I or II, according to Clavien-Dindo classification.

CONCLUSIONS

aPVP is an effective and safe procedure, achieving similar results when compared to HoLEP. Both techniques guarantee the same clinical and perioperative results, but PVP shows a greater impact on QOL.

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64 - NOVEL TUBE POSITIONING TECHNIQUE FOR AMS 800™ ARTIFICIAL URINARY SPHINCTER PLACEMENT

Matteo Balzarro[(1)] , Emanuele Rubilotta[(1)] , Marco Sebben[(1)] , - Silvia Bassi[(1)] , Maria Angela Cerruto[(1)] ANtonio Benito Porcaro[(2)], Romeo Pianon[(1)] . Walter Artibani[(1)]

AOUI, Dept. Urology, Verona, Italia[(1)] - AOUI, Dept. Urology, Dept. Urologyerona, Italy[(2)]

INTRODUCTION AND AIM OF THE STUDY

We describe a novel method of tube placement, in AMS-800 artificial urinary sphincter positioning, to avoid the risk of damage of the tubing system in case of suprapubic tube, or laparotomy is required

MATERIALS AND METHODS

We prospectively evaluated 34 consecutive male patients who underwent AMS-800 placing. In our modified tubing-positioning technique the lower limit of the dissection of abdominal fascia was the abdominal face of the pubic symphysis and the pectineal ligament. The lateral limit was the insertion of the aponeurosis at the external abdominal oblique muscle. The abdominal fascia was incised more laterally to position the balloon as far as possible from the midline. Before completing the connections, the tubing was fixed at the most lateral site of the aponeurosis with 3 stitches to stabilize tubing. Figure 1 illustrates the dissection area, ideal tubing allocation, and spots where to fix by sutures. Figure 2 shows tube placement documented by 3D CT scanning and abdominal X-ray.

RESULTS

There was no mechanical failure caused by any malfunctioning component. No patient had complications attributed to the new tubing path.

INTERPRETATION OF RESULTS

The AMS-800™ positioning technique has been described in detail.[1] However, the usual tubing path has been the shortest path from the tubing entry point in the retropubic abdominal area to the reservoir. As represented in Figure 3, this path ideally corresponds to the hypotenuse of a hypothetical right triangle, wherein it is the shorter and more medial path between the two acute angles (the tubing entry point and the reservoir). However, owing to its medial position, this route is potentially more dangerous in cases wherein ST placement is necessary. The tubing path described in this paper corresponds to the line of the two cathetus of the hypothetical right triangle. The shorter cathetus is in the retropubic space, covered and protected by the pubic bone. The longer cathetus is far from the possible zone of surgical incision or ST trocar passage because of its lateral position. For these reasons, this modified tubing positioning helps guarantee a lower risk of damaged tubing in case of ST placement or laparotomy. In our practice, we preferred to use non-absorbable material in the three sutures used to stabilize tubing in the curve points. However, it is conceivable that absorbable stitches might have similar results because of bonding of the dissected subcutaneous fat tissues. Sutures must not be tightened but air knots are suggested to ensure suspension without constricting the tubing.

CONCLUSIONS

Our novel tube positioning technique is quick, easy to perform, and offers the advantage of allocating tubing in a more safe position in the case a suprapubic tube is required.

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Figure 1: Dissection area, ideal tubing allocation, and spots where to fix by sutures.

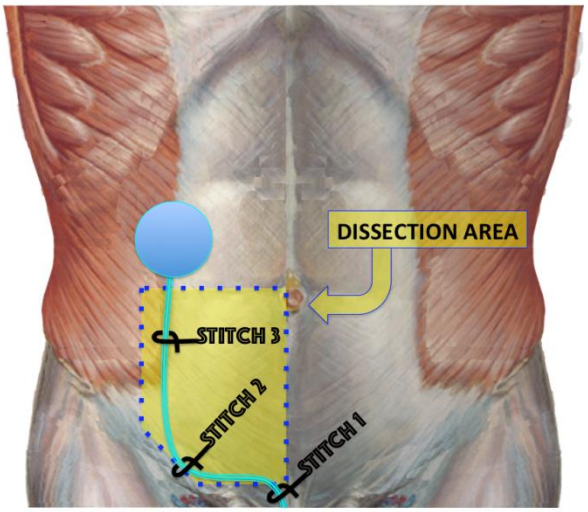


Figure 2: Tube placement documented by 3D CT scanning and abdominal X-ray.

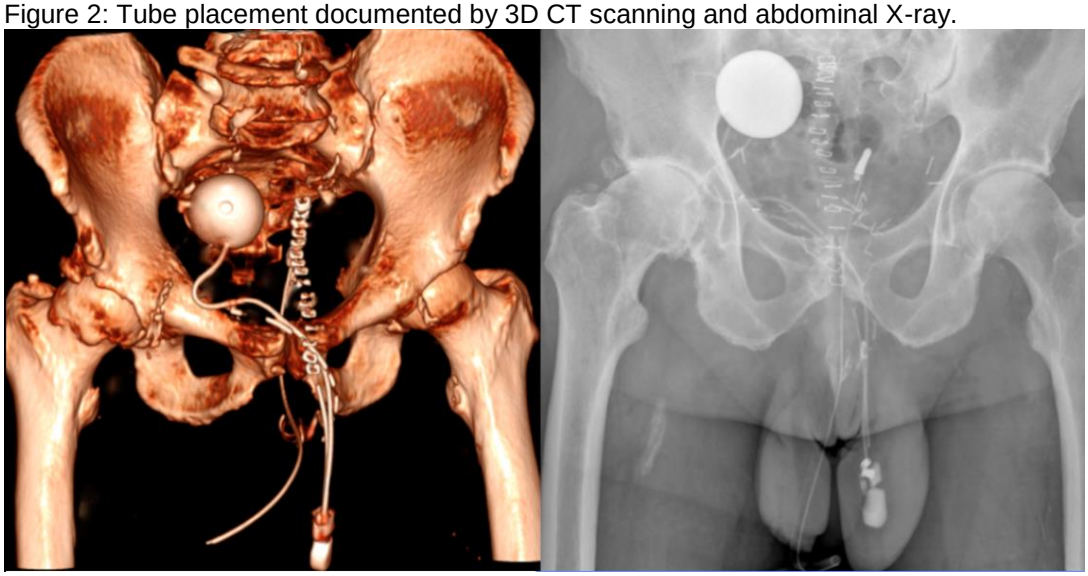
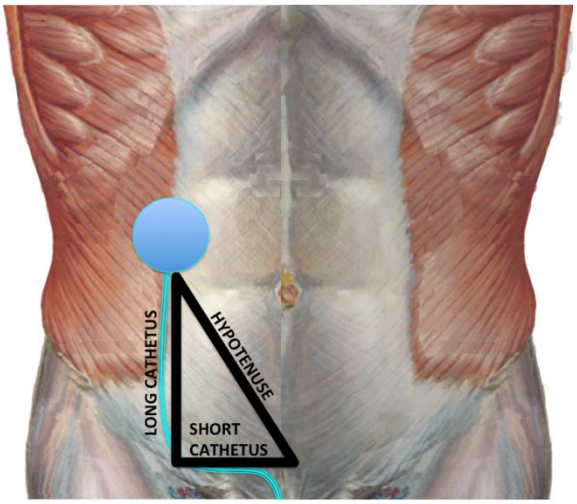


Figure 3: Usually path corresponds to the hypotenuse of a hypothetical right triangle, wherein it is the shorter and more medial path between the two acute angles. The proposed novel tubing path corresponds to the line of the two cathetus of the hypothetical right triangle.



65 - ULTRASOUND ANALYSIS OF RECTOVAGINAL SEPTUM BEFORE AND AFTER FASCIAL SURGERY FOR PELVIC ORGAN PROLAPSE

Stefano Manodoro[(1)] , Matteo Frigerio[(2)], Olga Boccia[(1)] , Rodolfo Milani[(2)], Federico Spelzini[(1)]

AUSL Romagna, Ospedale Infermi / UO Ginecologia e Ostetricia, Rimini, Italia[(1)] - ASST Monza, Ospedale San Gerardo / UO Ginecologia, Monza, Italia[(2)]

INTRODUCTION AND AIM OF THE STUDY

The rectovaginal septum (RVS) is a layer of connective tissue separating the anorectum from the vagina. Rectocele formation is thought to be due to RVS defects. The RVS can be identifiable with transvaginal 2D and 3D ultrasound, but literature lacks of correlations between ultrasound and clinical findings of posterior vaginal wall prolapse (PVP).
This study attempted to analyse RVS with transvaginal 2D ultrasound and relate RVS thickness with clinical objective findings and fascial surgery for PVP.

MATERIALS AND METHODS

Between May and September 2017 patients bothered by pelvic organ prolapse symptoms and eligible for transvaginal native tissue repair were prospectively analysed. Preoperative evaluation included a medical interview in order to assess the presence of urinary, sexual and bowel disorders. Complete urogenital examination was performed and POP staged according to Pelvic Organ Prolapse Quantification system (POP-Q). All patients underwent preoperative urodynamic evaluation according to ICS standards. We selected 11 consecutive patients for this study and they underwent pelvic floor ultrasound with BK Medical Flex Focus 400. For the study of the rectovaginal septum we used an endovaginal bi-planar probe with a linear longitudinal transducer of 65 x 5.5 mm (BK Medical probe 8848; 12 – 4 Mhz, focal range 3 - 60 mm). With transvaginal approach we performed a scan of the RVS and we measured its thickness from the vaginal mucosa to the ano-rectal lumen with caliper perpendicular to the axis of vaginal mucosa. Measures were recorded in three points: at the level of perineal body, at the level of the ano-rectal junction (ARJ) and 3 cm cranially from the latter. Surgical procedures are shown in Table 1. Patients were followed up 30-40 days after surgery. Clinical interview and complete urogenital examination were performed. Ultrasound analysis of the RVS was performed with the same modality as done preoperatively. Differences were tested with the Student T-test for continuous parametric data, with the Wilcoxon test for continuous non-parametric data and with Pearson's chi-squared for non continuous data. A $p<0.05$ was considered statistically significant.

RESULTS

A total of 11 patients were included. Six of them (group A) had symptomatic POP-Q stage ≥ 2 PVP and underwent native tissue repair through transvaginal levator ani miorraphy. The remaining 5 patients did not need posterior vaginal wall correction (group B). POP-Q parameters globally improved after surgery. Total vaginal length was reduced of 7 mm by surgery. This was not statistically nor clinically relevant. (Table 2).
In group A, after surgery for PVP, measures of RVS demonstrated a significant thickness increase at any of the analysed point. In group B only the thickness of perineal body was increased after surgery.

INTERPRETATION OF RESULTS

Transvaginal 2D ultrasound with bi-planar probe is a reproducible method to analyse RVS and its thickness.
PVP native tissue repair induces increase of RVS ultrasound thickness at any of considered point one month after surgery. These findings correlate with good anatomical outcome at early follow up.
Literature reported risk of POP recurrence in the posterior vaginal wall after surgery may be related with a weaker RVS in patients who did not underwent PVP correction at first surgery.
Perineal body thickness increase even in patients who did not underwent levator ani miorraphy can be explained with apical procedures performed for the central vaginal compartment.

CONCLUSIONS

Levator ani miorraphy is a valid procedure to correct PVP. It thickens RVS at ultrasound analysis performed one month after surgery.

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Table 1: Surgical procedures (n; %)

Histerectomy	9 (81.8%)
Histeropexy	1 (9.1%)
Apical Suspensions	11 (100%)
Anterior prolapse correction	8 (72.7%)
Posterior prolapse correction	6 (54.5%)

Table 2: POP-Q paramteres before and after surgery (mean ± SD)

	Before surgery	After surgery	P value
Aa	1.1 ± 2.3	-2.9 ± 0.3	**<0.001**
Ba	1.7 ± 2.9	-2.9 ± 0.3	**<0.001**
C	1.8 ± 3.4	-8.5 ± 0.9	**<0.001**
GH	3.9 ± 0.5	3.1 ± 0.4	**<0.001**
PB	2.8 ± 0.4	3.2 ± 0.3	**0.020**
TVL	10.2 ± 0.4	9.5 ± 1.4	0.155
Ap	-1.2 ± 1.2	-3.0 ± 0.0	**<0.001**
Bp	-1.2 ± 1.2	-3.0 ± 0.0	**<0.001**

Table 3: comparison of RVS thickness before and after surgery (mm ± SD)

Point of measure	Before surgery	After surgery	P-value
GROUP A			
Perineal body	4.5 ± 2.4	11.7 ± 1.3	**<0.001 ***
ARJ	3.0 ± 0.7	5.3 ± 1.9	**0.021 ***
Point 3 cm above ARJ	2.9 ± 1.5	6.6 ± 2.6	**0.012 ***
Mean of three measures	3.4 ± 1.3	7.8 ± 1.8	**0.001 ***
GROUP B			
Perineal body	3.2 ± 0.8	8.7 ± 4.4	**0.025 ***
ARJ	2.7 ± 1.3	3.2 ± 1.0	0.555
Point 3 cm above ARJ	4.0 ± 1.5	2.8 ± 0.4	0.136
Mean of three measures	3.3 ± 0.8	4.9 ± 1.7	0.090

66 - COULD ELECTROPHYSIOLOGICAL EVALUATION OF PELVIC FLOOR MUSCLE PREDICT SUCCESS OF REHABILITATION PROGRAMME AFTER RECTAL CANCER RESECTION?

Luisa De Palma (1) - Alberto Fersini (2) - Vincenzo Monitillo (3) - Alessandra dilascia (4) - Giuseppina Frasca (5) - Francesca cacace (5) - Giovanna Pellegrini (5) - Pietro Fiore (6)

Unità Spinale Unipolare e MFR, Policlinico di Bari/Dipartimento di scienze neurologiche e psichiatriche, Bari, Italia (1) - Chirurgia Generale Universitaria, Ospedali Riuniti di Foggia/Facoltà di Medicina e Chirurgia/Dipartimento di Scienze Chirurgiche, foggia, Italia (2) - medicina fisica e riabilitazione, istituti scientifici maugieri, cassano delle murge (ba), Italy (3) - chirurgia generale universitaria, Ospedali Riuniti di Foggia/Dipartimento di Scienze Chirurgiche, Foggia, Italia (4) - unità spinale unipolare e mfr, Policlinico di bari/dipartimento di scienze neurologiche e psichiatriche, bari, Italia (5) - unità spinale unipolare e mfr, Policlinico di bari/Università degli Studi di Bari/dipartimento di scienze neurologiche e psichiatriche, bari, Italia (6)

INTRODUCTION AND AIM OF THE STUDY

Intersphincteric resection (ISR) is a surgical procedure proposed to offer sphincter preservation in patients with low rectal cancer (1) with the aim of ensure the restoration of bowel continuity with preservation of fecal continence and achieve an acceptable quality of life. (2) However, post-operatively patients frequently present anorectal dysfunction including major and minor fecal incontinence (soiling), probably due to loss of rectal reservoir function or, as Tomita showed, due to a damage to the bilateral pudendal motor nerves (3). As described in recent studies, pelvic floor muscle training (PFMT) represents an effective option to improve postoperative functional disorders, but an important literature gap still exists in terms of the benefit of PFMT. Some studies reported a modest reduction in stool frequency and incontinence episodes measured by patient bowel diary or patient report after PFMT, while other studies showed a significant decrease in incontinence episodes. To predict success of PFMT, we investigated the prognostic value of pudendal nerve terminal motor Latency (PNTML) and external anal sphincter electromyography (AEMG) on bowel dysfunction in patients after ISR and PFMT.

METHODS

From 2012 to 2017, 14 consecutive patients (10 men and 4 women) with fecal incontinence or minor fecal incontinence (soiling) after ISR for low rectal cancer and no previous history of fecal incontinence were recruited. The patient characteristics are presented in Table 1. Electrophysiological evaluation was performed 3-10 weeks after ileostomy closure. Function in the distal parts of the innervations of EAS muscles was evaluated by PNTML and AEMG. Keypoint EMG/EP system (Dantec Company, Demark) was used in the examination of PNTML and AEMG. Rehabilitation was performed by a single physiotherapist who specializes in urinary and anal incontinence rehabilitation. All patients attended 45- 60min training sessions (two per week). Each patient received 20 consecutive treatment sessions. The Wexner scale was used as a specific and sensitive incontinence questionnaire.

RESULTS

Among 14 patients undergoing ISR, before rehabilitation treatment, the mean stool frequency was 4.2 ± 1.5 per 24 h (range 1–6); 41% of the patients suffered from urgency and 68% suffered from stool fragmentation. The mean Wexner incontinence score was 13.8 (range 9–19). 84% had occasional stool incontinence and 16% had frequent stool incontinence. Electrodiagnostic test abnormalities were found in 11 of 14 patients (78%), including 3 patients with abnormal results for both tests, 6 patients with only AEMG abnormality and 2 patients with only PNTML abnormality. The patients were classified into 2 groups based on their recovery outcome: group 1 —patients who recovered successfully from fecal incontinence, and group 2 - patients who did not successfully recover from fecal incontinence. Successful recovery from fecal dysfunction was defined as decrease of stool frequency and a significant improvement of continence according to the Wexner score.
After PFMT, 9 patients (64%) showed successful recovery with a mean Wexner incontinence score of 6.1 (range 1–8) and a reduced stool frequency (1.8 vs 5.8 per day) (group 1) and 5 patients (36%) did not (group 2). In order to correlate the results of electrophysiological evaluation with the outcomes of anal dysfunction, all 3 patients (100%) with abnormal results for both tests belonged to the group 2, besides 2 patients with only PNTML abnormality; 6 patients with only AEMG abnormality and 3 patients without AEMG abnormality belonged to group 1.

INTERPRETATION OF RESULTS

In the operative technique of ISR, bilateral pudendal nerve damage during dissection of the rectum and lymphadenectomy, and anal sphincter stretching during the anastomosis were both implicated. PNTML and

AEMG did not give similar information. A normal AEMG examination with a prolonged PNTML can be explained by a primary process of segmental demyelination of the anal nerve. In contrast, in patients who with normal PNTML values and a neurogenic AEMG pattern, the lesion may be primary axonal.

CONCLUSIONS

These findings showed that rehabilitation treatment improves continence after rectal resection, but this improvement occurs only in absence of demyelination of the anal nerve that could be the cause of incontinence in patients after ISR. So, this study confirms the prognostic value of PNTML in these patients to predict the successful recovery after PFMT.

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Table 1 --- Characteristics of patients

Age (years/range)	(69.6) (60-77)
Gender (M/F)	10/4
mean distance margin of tumor from dentate line (mm) (range)	21 (14-30)
Preoperative Radiochemotherapy	12
Postoperative complication	1 (anastomotic leakage)

67 - PROGNOSTIC SIGNIFICANCE OF ELECTROMYOGRAPHIC EVALUATION OF THE SACRAL REFLEX IN PATIENTS WITH CAUDA EQUINA SYNDROME

Luisa De Palma (1) - Vincenzo Monitillo (2) - Francesco Colucci (3) - Pietro Fiore (4)

Unità Spinale Unipolare e MFR, Policlinico di Bari/Dipartimento di scienze neurologiche e psichiatriche, Bari, Italia (1) - recupero e riabilitazione funzionale, istituti scientifici maugeri, cassano delle murge, Italia (2) - recupero e riabilitazione funzionale, istituti scientifici maugieri, cassano delle murge (ba), Italy (3) - unità spinale unipolare e mfr, policlinico di bari/Università degli studi di bari/dipartimento di scienze neurologiche e psichiatriche, bari, Italia (4)

INTRODUCTION AND AIM OF THE STUDY

Cauda equina syndrome (CES) results from an insult to the collection site of lumbosacral nerve roots that arise from the caudal spinal cord. Patients typically present with a classic triad of bladder and/or bowel dysfunction, saddle anesthesia or hypoesthesia, and sexual dysfunction, with possible neurologic deficit in the lower limb (motor/sensory loss, reflex change). Defining the outcome is considered extremely important for establishing proper management strategies and prevent complications. (1) The difficulty of identify clinical parameters that could reliably predict the outcome of patients with CES was considered by König and Amelung (2). They concluded that no single clinical parameters are capable of predicting the outcome of the disease, mostly because clinical exams are limited in that the manual test are subjective, and thus cannot be considered reliable. Conversely, according to Lee and Kwark (3), the electrically induced bulbocavernosus reflex (BCR) using electromyography (EMG) is considered excellent positive and negative predictive values for outcome of bladder function in patients with CES, but in their study the recovery of bladder dysfunction has not been confirmed by urodynamic studies. The aim of this study is to investigate the value of the objective technique EMG-based BCR testing in predicting the outcome of bladder recovery, highlighted by urodynamic studies.

METHODS

Between January 2013 and December 2017, 12 men and 19 women with radiological findings supporting CES and areflexic neurogenic bladder confirmed by a urodynamic study were recruited. All patients had EMG examination (external anal sphincter electromyography and EMG-based BCR evaluation) with evidence of definite pathological denervation activity, performed early (3-10 weeks) after the onset of the condition. Their mean age was 41.8 years (range 19–61). Subjects with previous lower urinary tract symptoms were excluded. Keypoint EMG/EP system (Dantec Company, Demark) was used in the examination of BCR. Concentric needle electrodes were used for EMG examination and BCR record and were inserted into right and left bulbocavernosus muscles in turn. A bar electrode was placed over the clitoris in women and on the shaft of the penis in men with the cathode proximal to the anode. A precisely standardized examination protocol was followed (4). Function of the detrusor-sphincter complex was evaluated by urodynamic studies. The primary outcome measure was the achievement of bladder control and the efficiency of micturition as shown by the decrease of residual urine, increase of detrusor contraction and development of bladder sensation. The recovery of bladder function was evaluated 1 year (range 10 to 15 months) after the onset of CES.

RESULTS

Of 31 patients recruited, sacral reflex activation was normal in 14 (BCR latencies 33.5ms± 5.1 on the right and 32.4ms ± 5.3 on the left), altered in 11 (BCR latencies 59.4ms ±5.2 on the right and 61.5ms ±4.3 on the left), and absent in 6. Urodynamic studies at month 12 (range 10 to 15) since the lesion to the cauda equine showed that 45.16% of all patients successfully recovered from bladder dysfunction. 9 of 14 patients with normal BCR and only 2 of 11 patients with altered BCR presented an improved sensation of bladder filling and an increase in Pdet max of 78.4%, a bladder contractility index (BCI) between 100 and 150 and no or low post-voiding residual urine. 3 patients with normal BCR presented a BCI between 80 and 100 and no or low post voiding residual urine. No improvements were reported in the group of patients with absent BCR and in 9 of 11 patients with altered BCR. So, they continued to perform clean intermittent catheterization.

INTERPRETATION OF RESULTS

BCR reflects the conduction function of pudendal afferent nerve, pudendal efferent nerve and S2-4 reflex arc. A severely delayed bulbocavernosus reflex latency and absent BCR response indicate severe injury of the cauda equina or conus medullaris, In our study, BCR latencies in patients with poor or absent recovery of

bladder function, were remarkably prolonged than those in patients successfully recovered, indicating that patients with poor recovery had pudendal nerve or sacral reflex arc diseases. The study suggested that BCR could reflect the function of sacral plexus sensitively and objectively, having diagnostic values for CES.

CONCLUSIONS

In conclusion, the examination of BCR in patients with CES seemed to have a good predicting value for recovery of bladder function.

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68 - STANDARDIZED EVALUATION SYSTEM OF BPS/IC: AN ITALIAN PROPOSAL

Alessandro Giammò (1) - Enrico Ammirati (2) - Roberto Carone (1)

Neuro-Urology Department—CTO Hospital—Spinal Unit, Città della Salute e della Scienza di Torino, Italy (1)
Urology Department, Molinette Hospital, Città della Salute e della Scienza di Torino, Italy (2)

INTRODUCTION AND AIM OF THE STUDY

The diagnosis of BPS/IC is substantially clinical, according to the ESSIC definition. After clinical suspicion, it is mandatory to exclude confusable diseases and identify phonotypical aspects of the disease. There are different severity grades, involved organs, possible allergies, and impact on quality of life. Some of these aspects can vary in the natural history of disease as well as after treatment. To facilitate a diagnostic pathway and follow up, we elaborated a standardized system.

MATERIALS AND METHODS

We elaborated a chart with 12 items, each considering a peculiar aspect/domain of the disease: micturing diary, VAS, presence of pelvic/systemic pain, prevalence symptom (pain/LUTS), validated questionnaires, associated pathologies, allergies and intolerances, ESSIC classification, bladder anatomical capacity, pelvic floor involvement.

RESULTS

The voiding diary highlights the urinary symptom that may have varying severity; sometimes a certain treatment acts more on urinary symptoms than on pain. The second item is represented by pain that represents the cardinal symptom of the pathology. The VAS allows to measure it and monitor changes during treatment. Sometimes the pain is exclusively pelvic and in some cases it involves other districts. Pain and LUTS can be variously represented in different cases. Sometimes pain symptoms prevail over LUTS, sometimes LUTS are the prevailing symptoms. The second line is dedicated to the different validated questionnaires for the pathology. They are important to quantify the impact on quality of life and to numerically express the results of therapy. The third line allows to investigate all the comorbidities, often present in these patients, and the possible allergies and intolerances. These data are important in order to request the intervention of the right specialists for a specific comorbidiy. Being BPS/IC a diet sensitive pathology, the finding of alimentary problems can recommend the intervention of a nutritionist specialist. One record is dedicated to the ESSIC classification, i.e. to endoscopic and histological phenotyping. In this way, the grid allows to relate the phenotype to the different clinical aspects, and allows to assess the impact of a given treatment on the basis of the phenotype. Anatomical bladder capacity is a very important information because, in some cases, a significant reduction is an indication to perform a bladder augmentation surgery. The last record concerns the perineal plane which is often hypertonic with multiple trigger points. In the event of significant anomalies noticed in the perineal plane, it will be advisable to request the intervention of a physiatrist. We used this evaluation system in everyday practice.

INTERPRETATION OF RESULTS

Patients affected by this disease have often stories that lasted for many years, carried out numerous tests and treatments. It is not always so easy to extrapolate the most important data from such complex stories. Moreover, in some cases, patients were already labeled as affected by BPS / IC, but following the grid did not show the elements that characterize the pathology, such as the absence of pain related to the bladder.
The grid demonstrated in our practice to be a simple and immediate instrument to characterize the clinical picture and follow the variations over time. Following each item of the chart, it was easy to collect all necessary information about the disease and have and immediate view of the condition. The use of the grid during follow-up made it very easy to highlight changes in any item.
Another interesting aspect is the possibility to identify a relationship between ESSIC phenotype, clinical manifestations and response to different therapies. For example, it may be useful to understand why some patients respond to bladder instillations and others to oral therapy alone, or the impact of rehabilitative treatment.

CONCLUSIONS

With this grid we standardized the clinical approach, collecting useful information for clinical classification and management of the disease. In our opinion, the grid could represent a methodological guidance in the approach to the pathology.

MICTURITION DIARY Day-time frequency: Night-time frequency: Functional capacity:	**VAS:** **Pelvic pain:** **Systemic pain:**	**Pain > LUTS** **Pain < LUTS** **Pain = LUTS**
PUF Symptom: Disorder: Total:	**O'Leary-Sant IC** Symptom Index (ICSI): Problem Index (ICPI):	**QoL:** **PGI-I:**
Associated pathologies:	**Autoimmune pathologies:**	**Allergies:** **Intolerances:**
ESSIC Classification: Cistoscopy: Biopsy:	**Anatomic bladder capacity:**	**Pelvic floor:** (mio-fascial component) + ++ +++

69 - ALTERATIONS IN MICROBIOTA ASSOCIATED WITH URINARY TRACT INFECTION IN PATIENTS WITH SPINAL CORD INJURY

Gabriella Fizzotti (1) - Elena Ginelli (2) - Giuditta Maestri (2) - Beatrice Aiachini (1) - Carlotta Bolis (1)

Unità Spinale, ICS Maugeri SPA SB, Istituto di Pavia, Pavia, Italia (1) - Università degli Studi di Pavia, Scuola di Specializzazione in Medicina Fisica e Riabilitativa, Università di Pavia, Pavia, Italia (2)

INTRODUCTION AND AIM OF THE STUDY

Microbiota defines the microorganisms that typically inhabit a particular environment. With the term "microbiome" we mean instead the entire habitat that characterizes this environment, including the micro-organisms that populate it. The microbiota appears to have a protective role against infections generated by pathogenic microorganisms (1). The intestinal microbiome is well studied and documented in the literature, while the bladder environment has been considered sterile, as frequently demonstrated by the absence of bacterial growth in traditional laboratory urinary cultures in asymptomatic individuals. However, new evidence derived from studies based on alternative methods to the usual diagnostic settings, reveal that bacterial flora is actually present in the bladder of patients with urinary cultures reported as negative.(1.2.3).
The aim of this study is to evaluate the possibility that the bladder and vagina share a common community of microbes that caractherizes the female urinary microbiota (FUM).

MATERIALS AND METHODS

15 patients with spinal cord injury were included: 13 with paraplegia and 2 with cauda equine syndrome. All the patients used intermittent catheterization to empty the bladder. Intermittent catheterization is widely advocated as an effective bladder management strategy for patients with incomplete bladder emptying due to spinal cord injury or disease. We designed a study to compare urine culture and vaginal swab at onset of symptomatic urinary tract infection (UTI).

RESULTS

All patients presented the same bacterial etiological agents in urine culture and vaginal tampons. Results evidence a possible bacteria agents communication between bladder and vagina during UTI. It is possible to hypothesize that bladder's microbiota can be similar to vaginal's micro-organisms population.

INTERPRETATION OF RESULTS

Assuming the female urinary microbiota, (FUM) has an important physiologic role, yet to be fully understood, it is likely that the microbial communities have varied and robust interactions with other pelvic floor viscera: bladder, rectum, pelvic genital organs and terminal part of the urethra.
According with evidence described in literature, we found a correlation between microbes communities of bladder and vagina.

CONCLUSIONS

In an effort to understand common lower urinary tract disorders in women with spinal cord injury, extensive research has been undertaken. This research has yielded significant insight into the interaction with the female urinary microbiota (FUM). A possible communication between bladder and vagina during an UTI has called our attention to best practices for the treatment and prevention of urinary tract infection in the spinal cord injured population.

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70 - Palmitoylethanolamide/ Polydatin in the Treatment of Interstitial cystitis/ Bladder painful syndrome

Marilena Gubbiotti (1) - Jacopo Adolfo Rossi de Vermandois (1) - Morena Turco (1) - Daniele Maglia (1) - Ettore Mearini (1) - Antonella Giannantoni (1)

Università di Perugia, dip. di Scienze Chirurgiche e Biomediche, Perugia, Italia (1)

INTRODUCTION AND AIM OF THE STUDY

Interstitial cystitis/bladder painful syndrome (IC/BPS) is still an "enigma" due to its elusive etiology and lack of curative therapy. An innovative approach in the management of chronic pain is represented by ultramicronized palmitoylethanolamide (um-PEA), a cannabimimetic compound existing in different formulations, um-PEA has been investigated as an analgesic agent in animal models and clinical trials across a variety of conditions, with favorable results. The present study was designed to evaluate the efficacy of um-PEA combined with Polydatin (Pelvilen®) add-on therapy treatment in the management of pain-resistant patients suffering from IC/BPS.

MATERIALS AND METHODS

Twenty- three patients suffering from IC/BPS, poorly responsive to conventional pharmacological agents, were included in this exploratory, open label study. History, physical examination, urinary symptoms and pain intensity evaluation on the Visual Analogue Scale (VAS) were collected from patients' clinical charts. Patients started assuming um-PEA/Polydatin 100 mg tablets (once daily, sublingually administered) while continuing their previous pharmacological treatments. Clinical evaluation with the 3- day voiding diary, uroflowmetry and VAS was repeated at 3 and 6 months follow- up.

RESULTS

There were 10 males and 13 females; mean age was 60.7 ± 14.2 yrs. All patients were under different poly-pharmacotherapies for IC/BPS, as: amytryptiline, nimesulid, pregabalin, tapentadol, skeletal muscle relaxants. At baseline 34.7% of patients had bladder pain/ burning (P/B) sensation, 30.4% had urethral P/B, 17.6% had dyspareunia, 13% had anal P/B, and 4.3% had prostate P/B. Twelve cases presented with urgency and 5 with urgency urinary incontinence (UUI). At 3 months follow- up, 20 patients (86.9%) showed a significant reduction in pain (mean ± SD VAS score increased from 3.6 ± 1.3 to 6.8 ± 1.3); urgency persisted in 6 patients and UUI in 3. Three patients stopped assuming um-PEA/Polydatin due to lack of efficacy. At 6 mos follow-up, pain completely disappeared in 5% of patients (5/20) while substantially decreasing in the remaining cases. No side effects have been recorded during um-PEA/Polydatin administration.

INTERPRETATION OF RESULTS

The results in the present study show that 86.9% reported a large benefit in pain reduction with um-PEA/ Polydatin add-on therapy. Nevertheless, a complete disappearance of pain was noted in only 5%.
PEA does not bind the classical cannabinoid receptors but may indirectly stimulate the effects of both phyto- or endocannabinoids, either by its role as an agonist of the transient receptor potential vanilloid type 1 (TRPV1) and peroxisome proliferator- activated receptor-alpha (PPAR-alpha).
Um-PEA/Polydatin acts by downregulating must cell degranulation via an "autacoid local inflammation antagonism" effect. A "receptor stimulation mechanism" on CB2 receptor-like target has been also hypothesized.

CONCLUSIONS

The present observational study provides preliminary evidence suggesting that um-PEA/Polydatin as add-on treatment to conventional pharmacological regimens in patients suffering from IC/BPS contributes to a significant pain intensity reduction. Worth of noting, relief in pain was obtained in our patients without any consistent side effect. Future studies should be addressed to investigate the benefits of this pharmacological agent, used alone or in combination, in the treatment of patients with IC/BPS.

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71 - Nocturnal polyuria in males with LUTS: prevalence and role of the International Prostate Symptom Score and uroflowmetry in the outpatient evaluation. An observational, prospective double-centre study.

Silvia Bassi (1) - Emanuele Rubilotta (1) - Matteo Balzarro (1) - Rita Righetti (2) - Marco Pirozzi (1) - Tania Processali (1) - Nicolò Trabacchin (1) - Pierpaolo Curti (2) - Maria Angela Cerruto (1) - Antonio D'Amico (1) - Walter Artibani (1)

AOUI Verona, Department of Urology, Verona, Italia (1) - AULSS 9 Scaligera, Ospedale Mater Salutis, Department of Urology, Legnago, Italia (2)

INTRODUCTION AND AIM OF THE STUDY

Nocturnal Polyuria (NP) is common in males with nocturia and/or lower urinary tract symptoms (LUTS) [1]. Nowadays frequency volume chart (FVC) is the best tool for the assessment of NP in the outpatient setting. Aim of the study was to evaluate the prevalence of NP, as well as the relation between NP, International Prostate Symptom Score (IPSS) and uroflowmetry (UF) data in males with LUTS.

MATERIALS AND METHODS

From September 2016 to November 2017, a consecutive series of 461 patients with LUTS were enrolled into a prospective study involving two Urological Departments. For each patient were collected the following data: detailed medical history, UF, sonographic assessment of Post Void Residual urine volume (PVR), a self-administered IPSS and a 3 days-FVC, indicating “bedtime” and “waking time”.
Based on 3 days-FVC, frequency (24 hours, day-time, night-time), total voided volume (24 hours, day-time, night-time), and Nocturnal Polyuria index (NPi) were assessed. NP was defined as a NPi > 33% [3]. Severe NP was defined as NPi > 50%. Analyses were performed considering: (i) total IPSS score; (ii) IPSS frequency score (domain 2); (iii) IPSS nocturia score (domain 7); (iiii) IPSS bother score (domain 8); (iiiii) peak flow (Qmax) at the UF; (iiiiii) PVR measured after UF. For the statistical analysis we used Kruskal-Wallis test.

RESULTS

162 patients completed both IPSS and 3-days FVC (mean age 70,95 ± 8.04 years). Table 1 shows the prevalence of nocturnal polyuria in different age groups: 89 (54,9%) patients had a NPi>33%, 16 (9,88%) of them had NPi>50%, based on the 3-days FVC. Average NPi was 34,40% ± 11,20. Prevalence was higher among young patients (64,71% in patients with an age less than 65 years).
Table 2 shows median IPSS score in each domain considered, Qmax and PVR, stratified according to NPi. Median IPSS domain 7 and total IPSS scores showed statistical difference in the three groups (p 0.001 and < 0.01 respectively). No significant difference was found analyzing median Qmax and PVR.

INTERPRETATION OF RESULTS

Our data showed a high NP prevalence (> 50%) among males complaining LUTS. In only a minor part of the patients NP was severe (<10%). NP influenced outcomes of median IPSS domain 7 and total IPSS score but not findings of IPSS domain related to quality of life and frequency. UF data (Qmax and PVR) did not change according to NPi. Therefore, NP did not impact the micturion and the bladder empting.

CONCLUSIONS

NP was extremely common among males with LUTS. IPSS questionnaire added few information about NP and his role in the specific assessment of NP in an outpatient setting remained uncertain. IPSS questionnaire allowed to assess nocturia episodes (Domain 7) but did not detect NP. Only the use of 3-days FVC may lead to a correct diagnosis. NP did not affect outcomes of UF and PVR.

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Table 1: prevalence of nocturnal polyuria in different age groups.

Age (years)	**NPi > 33%**	**NPi > 50%**
<65 (n=34)	22 (64,71%)	1 (2,94%)
65-74 (n=66)	32 (48,48%)	4 (6,06%)
≥ 75 (n=62)	35 (56,45%)	11 (17,74%)
Tot (n=162)	89 (54,94%)	16 (9,88%)

Table 2: median IPSS answers, peak flow and PVR, stratified according to NPi. IQR=interquartile range. *Kruskal-Wallis test

	NPi ≤ 33%	**33 < NPi ≤ 50%**	**NPi >50%**	***P value***
N° patients	73	73	16	
IPSS 2 (median and IQR)	1.00 [0.00 – 2.00]	1.00 [0.00 – 3.00]	1.50 [1.00 – 3.00]	>0.05*
IPSS 7 (median and IQR)	1.00 [1.00 – 2.00]	2.00 [1.00 – 3.00]	2.50 [2.00 – 4.00]	**<0.01***
IPSS 8 (median and IQR)	2.00 [1.00 – 3.00]	2.00 [0.00 – 3.00]	3.00 [1.50 – 4.00]	>0.05*
IPSS tot (median and IQR)	6.00 [3.00 – 10.00]	9.00 [5.00 – 14.00]	8.50 [5.00 – 18.25]	**<0.05***
Qmax (median and IQR)	13.60 [9.50 – 17.20]	12.00 [8.30 – 16.30]	13.75 [9.58 – 16.18]	>0.05*
PVR (median and IQR)	36.00 [12.00 – 70.00]	37.00 [19.00 – 77.00]	26.50 [17.25 – 41.75]	>0.05*

72 - Bipolar TURP: a prospective randomized study on long term functional outcomes and quality of life

Antonio Luigi Pastore (1) - Andrea Fuschi (1) - Giovanni Palleschi (1) - Yazan Al Salhi (1) - Antonio Carbone (1) - Gennaro Velotti (2) - Lorenzo Capone (1)

Sapienza University of Rome, Faculty of Pharmacy and Medicine, Department of Medico-Surgical Sciences and Biotechnologies, Urology Unit, Latina, Italia (1) - Sapienza University of Rome, Faculty of Pharmacy and Medicine, SDepartment of Medico-Surgical Sciences and Biotechnologies, Urology Unit, Latina, Italia (2)

INTRODUCTION AND AIM OF THE STUDY

The gold standard surgical treatment for bothersome moderate to severe LUTS secondary to BPO with enlarged prostates is monopolar TURP (M-TURP). M-TURP is considered as both clinically and cost effective. However, the procedure is associated with complications occurring in the perioperative period, such as urethral strictures (US), bleeding, bladder neck contractures (BNC) or transurethral resection (TUR) syndrome. Bipolar technology incorporation represents a significant technical improvement in TURP over last years. Bipolar TURP (B-TURP) addresses a fundamental flaw of M-TURP due to the fact that it can be performed in normal saline solution. B-TURP has revealed promising results. In this prospective study we randomized two groups of patients with BPO and compared the standard M-TURP and B-TURP with regard to efficacy, complication rates and functional outcomes with a long term follow-up (36 months).

MATERIALS AND METHODS

From January 2007 to July 2014 a total of 497 patients were randomized and prospectively scheduled to undergo bipolar (251) or monopolar (246) TURP. International prostate symptom score (IPSS), IPSS-Quality of life (QoL), post-void residual and maximum flow rate were assessed preoperatively and postoperatively at 3, 12, 24 and 36 months. The primary outcome parameter was the comparison of change (pre- and post-operative) in IPSS, IPSS-QoL scores, Qmax, and PVR between M-TURP and B-TURP. Secondary outcomes included the change in preoperative and postoperative PSA level, change in Hb level, blood transfusion, TUR syndrome, BNC, US, operative time, length of hospitalization and length of catheterization.

RESULTS

In both groups preoperative age, prostate volume, Hb level, PVR, IPSS and IPSS-QoL scores were comparable without statistically significant differences. : Perioperative results showed no statistical significance between the two groups in terms of catheterization days, post-void residual, IPSS, IPSS-QoL score. The operative time was proved to be similar between the two groups while the hospitalization days was found statistically significant in favour of the bipolar group. Regarding TURP complications, significant differences were observed in relation to urethral strictures, blood transfusion and TUR syndrome in favour of the bipolar group. The 3, 12, 24 and 36 months follow up showed significant and equal improvements in LUTS related to BPO in the 2 treatment groups.

INTERPRETATION OF RESULTS

The results of our study showed a statistical difference between the 2 groups in favour of the bipolar group in terms of blood transfusion rates, and/or hematuria requiring intervention as well as in days of catheterization (even though these last two data were not significant) . The drop in haemoglobin level was significantly lower in B-TURP when compared with M-TURP group. Accordingly, this study did demonstrate a valuable benefit from B-TURP with regard to bleeding complications. Blood transfusions were needed by 5 patients and no patient in M-TURP and B-TURP groups, respectively. All transfusions were due to severe gross hematuria, and in our study a higher blood loss for monopolar TURP was observed consistent to previous data reported in literature. In our series a slight but significant difference was shown between M-TURP and B-

TURP groups in terms of hospitalization days. Our findings showed no significant difference in both catheterization days and postoperative drop in PSA levels when comparing the two groups. However, the PSA change resulted statistically significant when evaluated pre- and post-operatively in each group. The rate of urethral strictures observed in our study (2.78% and 0.4% in the M-TURP and B-TURP group, respectively) was statistically significantly higher in M-TUPR group as compared to bipolar.

CONCLUSIONS

Bipolar TURP in our prospective study reported the same functional efficacy of M-TURP, with a significant reduction of related morbidities (TUR syndrome, blood transfusions rate, and urethral strictures).

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73 - CLEAN INTERMITTENT CATHETERIZATION: A PERCEPTUAL ANALYSIS AMONG ITALIAN HEALTHCARE PROFESSIONALS

Oreste Risi (1) - Elena Andretta (2) - Luisa De Palma (3)

Asst bergamo ovest, ssd urodinamica, bergamo, italia (1) - ulss 3, u.o.c urologia, dolo (ve), italy (2) - policlinico bari, unita' spinale unipolare, bari, italia (3)

INTRODUCTION AND AIM OF THE STUDY

In the 1970s, clean intermittent bladder catheterization (CIC) entered clinical practice to allow bladder emptying in replacement or completion of micturition (1). To assess the progress of this technique, we conducted a survey through perceptual analysis models (experiences in real life), investigating the opinions of health practitioners (HP).

MATERIAL AND METHODS

Between April and October 2017, 80 HP including Urologists, Physiatrists, Neurologists and Nurses of the major Italian Uro-Rehabilitation Centers, answered a computer assisted web interview made of 20 questions. The online questionnaire investigated the characteristics and the number of patients (pts) needing bladder catheterization, the choice criteria between permanent and intermittent catheterization, the types of devices used, training practices of CIC and technical assessment of catheters.

RESULTS

All HP - average age 46 years - answered the questionnaire; the sample included mainly nurses (80%), then urologists (10%) and physiatrists (3%). The perceptual analysis shows that CIC is used in 66% of cases of urinary retention (UR) transurethral indwelling catheters in 21%, suprapubic indwelling catheters in 6% and CIC plus indwelling catheters at night in 7%. Most of pts using CIC are males (57%) and more than 45% of them is over 56 years old (7% is older than 76 years); if considered only urology units the percentage of pts over 56 years old reaches 50%. Manual skills, appropriate cognitive functions, adequate anatomical and functional conditions are the 3 main features that lead to CIC as opposed to permanent catheterization. The conditions that required CIC are iatrogenic/idiopathic UR in 32% of cases and neurogenic bladder in 68% - due to spinal cord injury (29%), multiple sclerosis (22%), peripheral lesions (9.5%) and spina bifida (7.4%) -. The percentage of pts needing CIC for iatrogenic/idiopathic UR is higher in urology units (44%) than in rehabilitation centers (2%), where 81% of CIC is due to spinal cord injury. CIC training is performed by the nurse in 94% of centers. An average of 3.6 (range 1 - 10) sessions of training, of an average duration of 32 minutes (range 5-90), are required for each patient. In urology units the average number of sessions is lower than in the rehabilitation centers (2.5 versus 5.9) and is balanced by the average length of a single session (36 minutes versus 22 minutes in the rehabilitation centers).

INTERPRETATION OF RESULTS

The survey shows that the causes of non-neurological UR that require CIC are increasing (32%) as well as the age of subjects who need to be trained to CIC. Different causes of neurogenic bladder are becoming relevant apart from spinal cord injury, first of all multiple sclerosis and peripheral lesion. Nurses play a crucial role in CIC training while physicians, especially urologists, should be more involved in follow-up of pts in CIC. (2)

CONCLUSIONS

Nowadays, according to the Italian HP opinion, CIC is chosen in most cases of UR (66%). Besides the causes of UR, together with the age of individuals needing CIC, are increasing, probably due to life lengthening and comorbidities. CIC confirms to be the gold standard for the management of UR, due to the lower incidence of complications compared to indwelling catheters and to the improvement of patients' quality of life.

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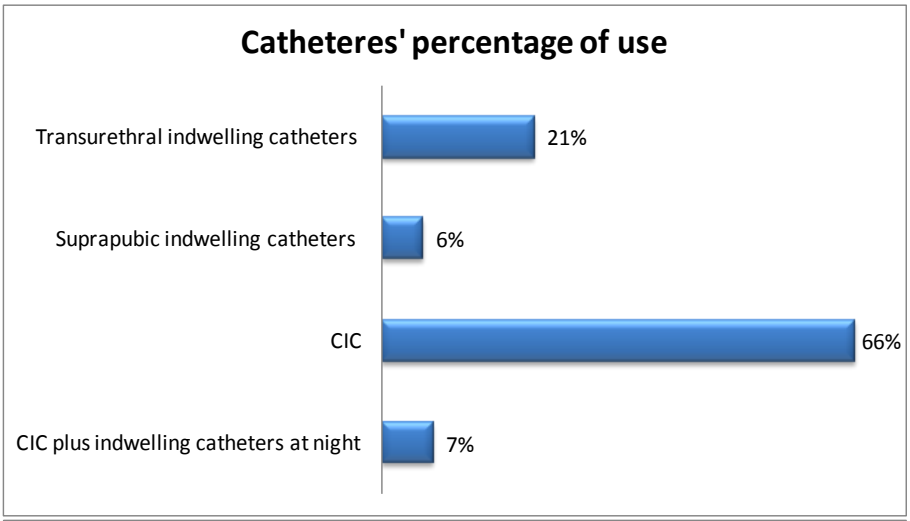
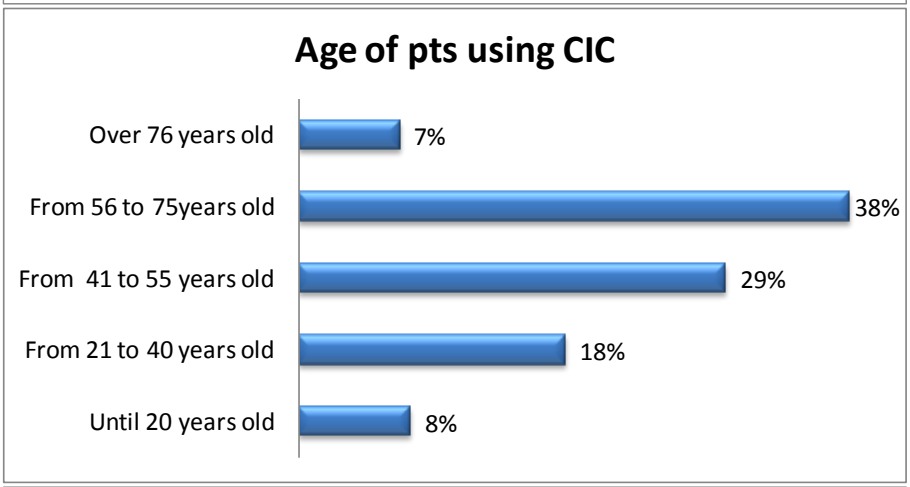
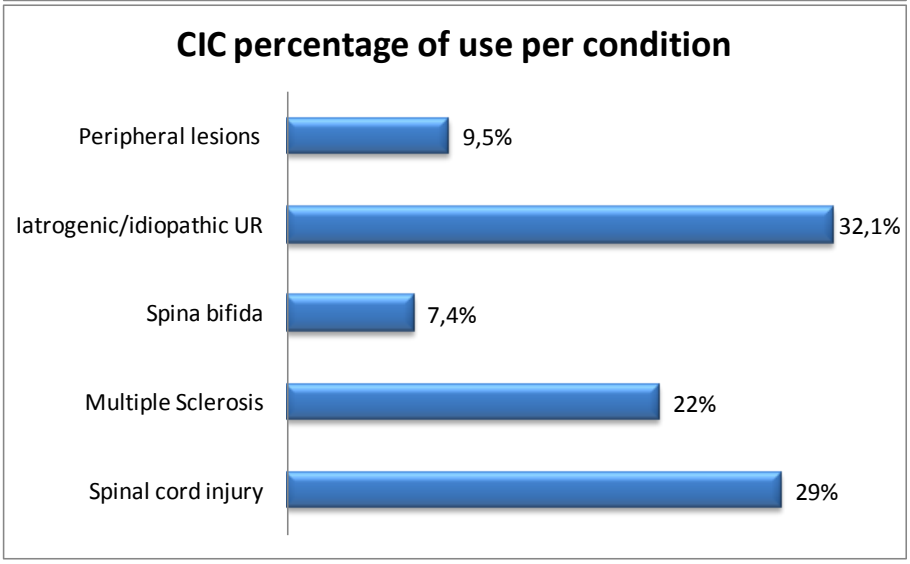

Catheteres' percentage of use
Transurethral indwelling catheters
21%
Suprapubic indwelling catheters
6%
CIC
66%
CIC plus indwelling catheters at night
7%


Age of pts using CIC
Over 76 years old
7%
From 56 to 75years old
38%
From 41 to 55 years old
29%
From 21 to 40 years old
18%
Until 20 years old
8%


CIC percentage of use per condition
Peripheral lesions
9,5%
Iatrogenic/idiopathic UR
32,1%
Spina bifida
7,4%
Multiple Sclerosis
22%
Spinal cord injury
29%

74 - LUTS RECOVERY AFTER PROSTATE PHOTOVAPORIZATION OR ANATOMICAL GREENLIGHT LASER VAPORIZATION: DOES ENERGY MATTER?

Arcangelo Sebastianelli (1) - Andrea Chindemi (1) - Agostino Tuccio (1) - Pietro Spatafora (1) - Simone Morselli (1) - Matteo Salvi (1) - Andrea Minervini (1) - Marco Carini (1) - Sergio Serni (1) - Mauro Gacci (1)

Università degli Studi di Firenze, AOU Careggi / Università degli Studi di Firenze / Dipartimento di Urologia, Firenze, Italia (1)

INTRODUCTION AND AIM OF THE STUDY

Outcomes after prostate photovaporization (PVP) and anatomical photovaporization (APV) are still controversial, particularly when performed on large prostates. Persistent postoperative LUTS represent the main bothering factor for patients. Aim of our study was to evaluate the impact of energy delivered during the procedure on short-term and long-term LUTS recovery.

MATERIALS AND METHODS

Patients treated with PVP or APV for LUS due to benign prostate enlargement (BPE) were prospectively evaluated from May 2014 to January 2017. All the procedures were performed by 2 experienced surgeons (more than 100 procedures) using a GreenLight laser XPS. APV was carried out as previously described by Gomez Sancha. Patients were preoperatively assessed according to prostate volume, prostatic specific antigen (PSA), International prostate symptom score (IPSS) and maximum urinary-flow rate (Qmax). Operative data included energy delivered, vaporization time and operative length. Postoperative data were recorded at 3, 6 and 12 months. Comparisons were made using unpaired t-tests for continuous variables and multivariate logistic regression.

RESULTS

Overall, 214 patients were evaluated: 85 treated with AVP and 129 with PVP. Mean prostate volume was significantly higher in AVP compared with PVP group (76,6 ±17,36 Vs 59,1 ±10,4 cc; p=0,001). Mean energy delivered (194651,1 ±80025,2 Vs 171674,4 ±57585,3 J; p=0,015) and vaporisation time (22,6 ±8,3 Vs 20,3 ±6,2 min; p=0,026) were significantly higher in AVP group. However, operative length was similar between the 2 groups (58,2 ±21 Vs 55,2 ±18 min; p>0.05). Six months after surgery IPSS (6,81±1,5 Vs 6,68±1,5; p=0,54) and Qmax (21,2±3,01 Vs 21,9±3,18 ml/s; p=0,138) were alike between groups, though a statistically significant association was found between the amount and time of energy delivered and higher IPSS (p=0,047 and p=0.44; fig.1a-b). At 12 months follow-up both IPSS and Qmax continued to be similar between groups, interestingly, energy delivered was associated with lower IPSS (p=0,002) and vaporization time lost its significance (p>0,05) (fig.1c-d).

INTERPRETATION OF RESULTS

Both PVP and AVP represent valid treatment options for LUTS due to BPE. Irrespective of the adopted technique, energy delivered and vaporization time were associated with higher IPSS 6 months after surgery and lower after 12 months.

CONCLUSIONS

Data could be useful for postoperative patients counseling. The availability of two different GreenLight laser techniques allows surgeons to safety use this technology that remains effective with high patient satisfaction.

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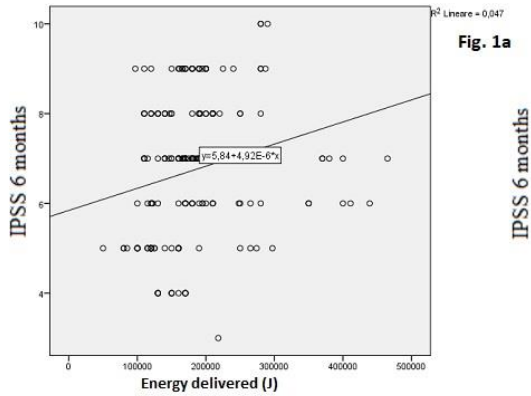

Fig. 1a

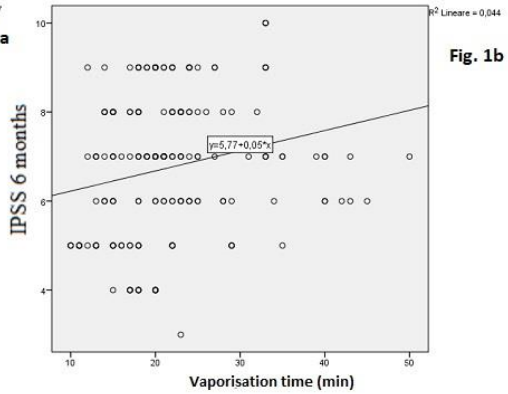

Fig. 1b

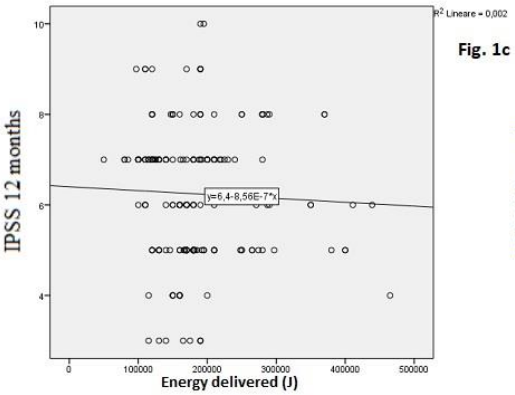

Fig. 1c

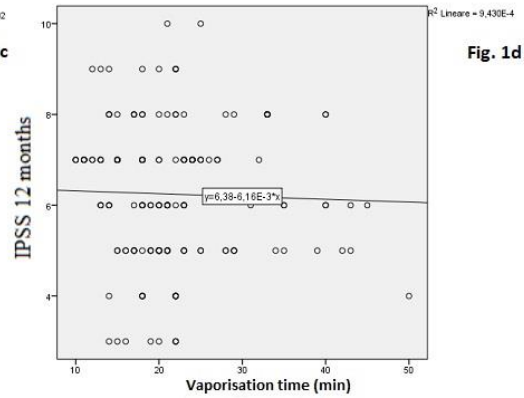

Fig. 1d

75 - Is urodynamic investigation properly prescribed in daily clinical practice? Report of data collected from an urodynamic centre.

Giovanni Palleschi (1) - Antonio Carbone (1) - Yazan Al Salhi (1) - Andrea Fuschi (1) - Gennaro Velotti (1) - Lorenzo Capone (1) - Alessia Martoccia (2) - Antonio Luigi Pastore (1)

Sapienza university of rome, department of medico-surgical sciences and biotechnologies, latina, italia (1) - sapienza university of rome department of medico surgical sciences and biotechnologies, latina, italia (2)

INTRODUCTION AND AIM OF THE STUDY

Urodynamic (UDM) test is scheduled in diagnostic algorithm of Lower Urinary Tract Symptoms. The European Association of Urology, the International Consultation on Incontinence, the American Association of Urology and the National Institute for Health and Clinical Excellence provide recommendations for the use of this test. Despite these indications, in daily clinical practice many UDM investigations are not properly prescribed. This fact causes not only an economic expense for the national health system, but it is also responsible for an erroneous diagnostic approach to LUTS. In this study, we analyzed the prescriptions for UDM of patients attending our clinic from january 2013 to december 2016 and verified how many did not respect the international guidelines.

METHODS

We reviewed our electronic database of patients attending the UDM clinic. We evaluated who was the medical doctor prescribing the UDM and the reason for the prescription. Finally, looking at the UDM outcome, we have expressed a definitive judgment on the appropriateness or not of the prescription.

RESULTS

In the period examined, 504 UDM were performed (356 in males, 148 in females). Mean age was 57 in males and 46 in females. Prescribers were represented by: general practitioners (8%), gynecologists (29%), neurologists (30%), urologists (33%). Main reasons for the prescriptions were represented by: prostatic hyperplasia (43%), urinary incontinence (22%), symptoms of overactive bladder (12%), nocturia (10%), urinary infections (8%), enuresis (5%). Only in 44% of prescriptions a specific clinical question was reported by the prescriber.

INTERPRETATION OF RESULTS

In most of the cases the prescription reported only the clinical condition (i.e.: prostatic hyperplasia). Considering clinical history of the patients and looking at the type of investigations previously performed, only 24% of UDM resulted as an appropriate prescription respecting the guidelines recommendation. Highest rate of inadequate prescriptions was provided by general practitioners, followed by urologist, then neurologist and gynecologists. Furthermore, considering clinical history of pts and UDM outcome, in 88% of the 24 UDM adequately prescribed, the UDM diagnosis added new informations respect to those acquired before with previous non-invasive methods.
CONCLUSIONS: In our case series UDM was often prescribed without a proper indication. In addition, in the vast majority of cases, the test results did not significantly change the therapeutic approach and did not added significative diagnostic data. This pilot study shows that there is still an incorrect use of this diagnostic test. Compliance with the guidelines and the correct indication for performing UDM examination enhances its diagnostic value. In addition, its inappropriate use increases the waiting list of pts who really need it.

76 - LA SINDROME DEL MUSCOLO OTTURATORE INTERNO: CASE REPORT

D. Giraudo(1), L. Lamberti(2)

ICCRS Ospedale San Raffaele(1) - S.C. Neuroriabilitazione "E. Viglietta" - Unità Stati Vegetativi e di Minima Coscienza(2)

INTRODUZIONE E SCOPO DELLO STUDIO

La dissezione per via transaddominale conferma che il nervo pudendo ha origine dalla confluenza delle radici nervose che fuoriescono dai forami sacrali S2 S3 S4 con un maggiore contributo della radice S3; dopo l'emergenza le radici decorrono sulla faccia ventrale del muscolo piriforme, ed il tronco nervoso che deriva passa dietro il legamento sacrospinoso, appoggiandosi sul muscolo coccigeo, medialmente alla spina ischiatica ed esce dalla cavità pelvica attraverso il grande forame ischiatico. Dopo essere passato dietro il legamento sacrospinoso il nervo pudendo entra nella regione glutea inferiore passando al di sotto del bordo inferiore del muscolo piriforme, medialmente all'origine del muscolo gemello superiore. Decorre successivamente sulla superficie posteriore del muscolo otturatore interno: lungo questo percorso si divide in due tronchi, superiore ed inferiore; il tronco superiore si porta medialmente alla spina ischiatica e quello inferiore incrocia la spina ischiatica stessa. Entrambi i tronchi viaggiano verso il canale del pudendo, posizionato sulla faccia mediale dello osso ischiatico. Il ramo superiore e quello inferiore del nervo pudendo si dividono successivamente in rami più piccoli all'interno del canale del pudendo, appena prima il suo ingresso; il canale del pudendo ha una lunghezza media di 3 cm e solitamente il tronco inferiore del pudendo dà origine al nervo rettale inferiore all'interno del canale del pudendo stesso, incrocia la fossa ischiorettale, per innervare lo sfintere anale esterno e l'area perianale. Il nervo dorsale del clitoride deriva dal tronco superiore del nervo pudendo; uscito dal canale del pudendo questo ramo decorre lungo il margine inferiore del pube per raggiungere il clitoride. Il nervo perineale ha origine sia dal tronco superiore sia dal tronco inferiore, e dopo essere uscito dal canale del pudendo raggiunge ed innerva il muscolo superficiale trasverso del perineo, lo sfintere anale esterno e la cute delle grandi labbra. Il muscolo otturatore interno, nella sua porzione intrapelvica, è localizzato nella faccia interna dell'anello pelvico ed assicura la copertura parziale del forame otturatorio; uscito dalla pelvi, si inserisce sul gran trocantere. A secondo del posizionamento del punto fisso, all'origine o all'inserzione, la sua azione cambia. A bacino fissato, su un piano stabile, determina la mobilizzazione del femore in abduzione ed in rotazione esterna. Quando invece il bacino è mobile con l'arto inferiore fissato al suolo, in relazione al suo posizionamento nella porzione più caudale e posteriore del bacino, al di sotto dell'ischio, determina una rotazione posteriore di quest'ultimo e porta il pube verso l'avanti.
Il muscolo è l'elemento di connessione tra gli arti inferiori ed il bacino: una situazione contratturale della porzione extrapelvica può determinare una sindrome da compressione della radice del nervo sciatico, quella della porzione intrapelvica una compressione del nervo pudendo (fig.1).

MATERIALI E METODI

Viene descritto il caso di una giovane donna che si presenta presso l'ambulatorio di riabilitazione perineale perché affetta da un dolore perineale spontaneo, riferito al territorio innervato dai rami terminali del nervo pudendo destro. La sintomatologia si protrae da oltre nove mesi, a seguito di una banale caduta con trauma diretto sull'anca destra.
La paziente riferisce dolore importante riferito come "all'interno del bacino" durante il coito, lateralizzato a destra. Alla valutazione segmentaria, in un quadro di "non-relaxing pelvic floor", è possibile rilevare un'asimmetria di reclutamento, con maggiore rigidità destra. L'iliaco destro alla valutazione della postura appare in anteriorità. Allo "swab test" si conferma la lateralizzazione del dolore a destra e si rileva spiccata positività della manovra di Thiele omolaterale.

RISULTATI e DISCUSSIONE

La paziente ha completato una VAS ed il FSFI (Female Sexual Function Index). La paziente è stata sottoposta ad RM pelvica ed è stata sottoposta a trattamento chinesiterapico con manovre endocavitarie (che hanno coinvolto anche il muscolo otturatore interno) e con TENS somministrata con sonda Optima® (Sugar, FR). Al termine del trattamento, dopo due mesi circa, è stato possibile osservare il miglioramento alla manovra palpatoria endocavitaria ed al FSFI.

CONCLUSIONI

La sindrome canalicolare da compressione del pudendo da parte del muscolo otturatore interno, rara, può essere causa di dolore pelvico cronico; la valutazione clinica segmentaria, unitamente ad una osservazione posturale ed alla accurata valutazione con imaging pelvico, consente di attuare un corretto trattamento riabilitativo.

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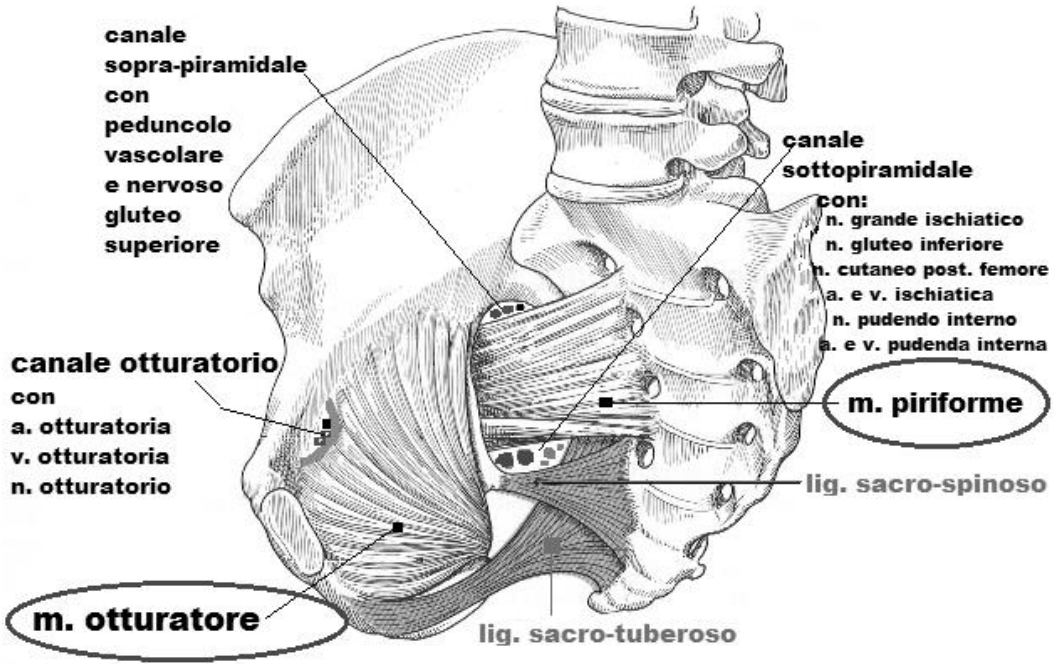

77 - LE STRATEGIE TERAPEUTICHE RIABILITATIVE NEL DOLORE PELVICO CRONICO NELL'ENDOMETRIOSI: REVISIONE NARRATIVA

E. Andrighetti

Il dolore pelvico cronico è una delle manifestazioni più comuni dell'endometriosi anche se non si rileva spesso una chiara correlazione Sulla localizzazione della lesione evidenziabile alla laparoscopia e la sede cui vengono riferiti I dolori più intensi.

I trattamenti proposti, farmacologici e chirurgici, sono spesso in grado di controllare l'estensione delle elezioni endometriali ectopiche, ma non sono in grado di incidere in modo significativo e prolungato nel tempo sul dolore.

La presenza di Trigger Point secondari ai fenomeni di sensibilizzazione centrale periferica può poi essere un fattore scatenante e di mantenimento del dolore pelvico stesso.

Sono ancora molti i tabù che caratterizzano la vita intima di una donna, spesso correlati a ragioni sociali, culturali o semplicemente dettate dalla non conoscenza. Una tra le problematiche silenziose femminili è appunto quella del dolore pelvico cronico, condizione fortemente debilitante che altera la qualità della vita di molte donne. Secondo le recenti statistiche colpisce dal 2 al 25 % della popolazione femminile tra i 18 e i 50 anni e rappresenta la causa del 10-40% di tutte le visite ginecologiche con un grande impatto sulle spese sanitarie e sulla perdita di produttività stimato in diversi milioni di euro all'anno.

Spesso il dolore pelvico cronico si mantene al di là di una causa specifica, e ancora più spesso è possibile rilevare nel quadro clinico un'insieme di concause di tipo sia organico che psicologico, quali alterazioni posturali, stress, eventi traumatici, ansia e tensioni muscolari che coinvolgono la muscolatura pelvica ma anche un'eccessiva attività fisica;

L'insieme di queste cause sopra elencate si traduce in un'unica alterazione fisiopatologica che produce un iperattività della muscolatura del pavimento pelvico ("non relaxing" pelvic floor)

Proprio per le caratteristiche descritte precedentemente, un intervento terapeutico efficace dovrebbe tener conto della dimensione multifattoriale che intacca sia la sfera organica che quella psicologica.

Da un punto di vista strettamente riabilitativo, il trattamento è mirato a ridurre la sintomatologia tramite tecniche di fisiochinesiterapia ed esercizi terapeutici finalizzati a:
- Una presa di coscienza della patologia;
- Modificazioni comportamentali;
- Riduzione di eventuale infiammazione a livello vestibolare;
- Lavoro sui muscoli del pavimento pelvico.

Vengono quindi prese in considerazione le principali tecniche fisioterapiche utilizzate e proposte in letteratura in particolare in caso di endometriosi.

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