Aims of Workshop
The objective of this workshop is to identify and answer the main questions of patients with urinary incontinence after radical prostatectomy and to allow the discussion of how to interpret and solve their problems. The discussion of the selected questions attempts to observe the anxieties and concerns of the patients affected by this comorbidity. The expected outcome is to learn how we can improve treatment under emotional and functional aspects.

Learning Objectives
Classify the grade of urinary incontinence, the results of physiotherapy and expectation of each type of surgery.

Learning Outcomes
Identify patient anxieties and select the more appropriate treatment.

Target Audience
Urologists, Nurses, Physiotherapists.

Advanced/Basic
Basic

Conditions for Learning
This is an interactive workshop.

Suggested Learning before Workshop Attendance


Suggested Reading


Much is said about physical therapy, but what is the evidence?

Del Popolo Giulio
Neuro-Urology Unit; Careggi University Hospital Firenze (Italy)

Men who develop PPI (post-prostatectomy incontinence) should be treated through conservative methods in the first year, as continence status will continue to evolve. The value of the approaches to conservative management of post-prostatectomy incontinence after radical prostatectomy remains uncertain despite improvement of surgical open and video laparoscopic or robotic technique in preserving neurovascular bundle. The evidence is conflicting about physical therapy interventions after prostatectomy, which may include pelvic floor exercises (PFE), electrical stimulation (ES), biofeedback training (BFB) and also behavioural therapy (BT). Although, in general, there is enough evidence to demonstrate the beneficial effects of pelvic floor muscles training (PFMT) (Anderson et al., 2015), there is insufficient evidence to demonstrate the right time to begin PF training after surgery nor the amount and type of exercises to be performed, i.e., there is not a clear protocol to be followed. Conclusions are difficult to make because of the heterogeneity of the results, and most studies do not describe exactly treatments. We currently do not know in most cases pelvic floor muscle strength and innervation prior to surgery, even if has been demonstrated that anatomic support and pelvic innervation are essential factors in the aetiology of PPI and that their damage leads to higher rates of PPI (Heesakker et al., 2017).

In particular the role of PFE has been debated: data show that strength of pelvic floor muscles (PFM) and striated urethral sphincter (SUS) plays a crucial role in maintenance of urinary continence and if the urethra is short this may accompany lesser volume of SUS muscle fibers available to compress the urethra (Stafford 2018). Despite the variety of outcome measurements used to assess PPI, several trials showed that PFMT was significantly more effective than no treatment or sham treatment in the immediate postoperative period and that preoperative and postoperative PFMT is better than only postoperative PFMT (Van Kampen et al., 2000; Manassero et al., 2007). The results of preoperative PFMT on incontinence were positive in several trials, and postoperative PFMT is better than only information about PFMT before and after surgery (Burgio et al., 2006; Centemero et al., 2010; Tienforti et al., 2012).

Biofeedback involves the use of a device to provide visual or auditory feedback: no additional effect of biofeedback was found in men undergoing a radical prostatectomy; the positive role of Functional Electrical Stimulation (FES) was confirmed (Yokoyama et al., 2004; Liu et al., 2008; Yamanishi et al., 2010) using a rectal probe or transcutaneous electrodes to facilitate awareness of contraction of the pelvic floor muscles or to inhibit detrusor contraction.

Future studies should focus on identification of men more likely to benefit from conservative interventions, as symptoms of incontinence after prostatectomy tend to improve over time without intervention. Screening those with potential intrinsic sphincter deficiency post-surgery.

The specific effectiveness of a physical therapeutic approach for incontinence after prostatectomy can only be evaluated with randomised controlled studies.

New Techniques to Evaluate the Degree of Incontinence

Andrew Gammie, Bristol Urological Institute, UK

Leakage of any amount, however small, is bothersome to the patient. The clinician may be interested to ask how much leakage, what is the cause etc., but the patient is more likely to be concerned about stopping it completely, and what intervention might be possible to achieve that.

It has recently been stated that ‘the role of urodynamic testing to assess these patients and offer treatment is still to be determined’. It is clear, though, that the combined function of the sphincter and the pelvic floor is vital in this group of patients. There may then be a role for urethral pressure profilometry (UPP) in this area, dealing as it does with the changes in pressure through the functional length of the urethra.

Data from a small number of patients in our centre shows that the UPP traces can demonstrate the action of the pelvic floor on the continence mechanism, alongside a measurement of sphincter closure pressure. It can also demonstrate the different action of pelvic floor contraction and abdominal straining by measuring pressure changes above and below the sphincter level. Voluntary and spontaneous (evoked) coughs could be used within the protocol, as these are known to have different effects.
Thus the UPP test may have a use in biofeedback, in assessing the relation between urethral closure pressure and leakage and evaluating the capacity of the pelvic floor to aid continence. The patient can then be advised on the degree of improvement possible through physiotherapy.


How to select the technique?
Calos D’Ancona, UNICAMP, Brazil.

To treat post prostatectomy incontinence, the most used techniques are: artificial sphincter and sling. The sling can be compressive or repositioning and adjustable or not. How to select the best technique for the patient? It depends on the grade of incontinence, the preference of the patient and the ability to action the artificial sphincter. How to select the technique between sling and artificial sphincter?

There are many maneuvers or techniques to grade the incontinence and we want to analyze the effectiveness of each technique: numbers of pads, weight pad test, reposition test, ultrasound and urodynamics. Some authors separate in mild, moderate and severe incontinence, but what is the threshold?

We performed a study to answer this question. And the answer is …...

References:

What to do if the patient improves but is still unsatisfied
Del Popolo Giulio
Neuro-Urology Unit; Careggi University Hospital Firenze (Italy)

Patients after surgery ask to maintain or improve their previous urinary continence and sexual function. Despite new surgery technique and early rehabilitation patients can be affected by post-prostatectomy urinary incontinence (PPI) and/or lower urinary symptoms (LUTS) and/or Erectile Dysfunction (ED). If pelvic floor rehabilitation is not enough to obtain patient’s satisfaction, medical therapy can improve LUTS and/or continence. Erectile function can be improved by early pharmacological therapy.

Antimuscarinics and B3 agonist can improve bladder control if urgency/frequency and/or urge incontinence is detected. Some study showed also a role of Duloxetine in post-prostatectomy stress urinary incontinence due to sphincter deficiency, but few study has been published and also if Duloxetine showed a good efficacy but only in the short time follow up. If oral treatment fails urodynamic evaluation is needed and a second level treatment may be taken in consideration such as percutaneous tibial nerve stimulation (PTNS), sacral neuromodulation or botulinum toxin intradetrusor injection. If botulinum toxin is used the patient must informed regarding the risk of post treatment urinary retention and need of a period of intermittent catheterization. In case of light or mild stress urinary incontinence persistence the sling procedure for light or mild urinary incontinence or artificial sphincter implant, if severe incontinence, are indicated.

In patients with overactive bladder associated with stress urinary continence recovery of continence is hard to reach, especially if bladder show a very low capacity or reduced bladder compliance.

In patients affected by incontinence with associated voiding dysfunction and high residual urine, first of all is mandatory to ensure at least a complete bladder voiding. Intermittent catheterization should be taken in consideration as first approach. Regarding erectile dysfunction there are some data showing that early use of PDE5 inhibitors can improve recovery erectile potency. But if despite oral therapy the patient is not satisfied intracavernous prostaglandin injection can be offered starting the treatment with a low dosage. Last option is the surgical implantation of a penile prosthesis. Penile prosthesis and artificial sphincter despite a good efficacy at short and medium follow up, we must inform the patient about risk of complications such as erosion, infection and mechanical malfunctioning.

In conclusion functional outcome after prostatectomy improved in the last ten years. We have conservative, medical and surgical option to recovery continence and sexual activity. Early approach of treatment is recommended to avoid more invasive treatment.
POST PROSTATECTOMY URINARY INCONTINENCE: QUESTIONS THE PATIENTS ASK

MUCH IS SAID ABOUT PHYSICAL THERAPY, BUT WHAT IS THE EVIDENCE?

Giulio Del Popolo
Neuro-Urology & Spinal Unit
Careggi University Hospital
Firenze - Italy

LIFESTYLE

Appropriate Body Weight

AHEAD trial - on a subset of male participants (n=1910).

- Prevalent UI at one year were reduced by 38%
- Support and education group
- UI decreasing from 17% to 9%

Phelan, Kanaya et al. (2012)

Lifestyle modification interventions promoting weight loss as a tool to reduce urinary incontinence in men who are overweight or obese.

(Level of Evidence: 3)

LIFESTYLE

Smoking cessation, Healthy Eating, Appropriate Body Weight, Avoiding excessive Caffeine or Alcohol

EVIDENCE?

Phelan, Kanaya et al. (2012)

AHEAD trial - on a subset of male participants (n=1910).

- Prevalent UI at one year were reduced by 38%
- Support and education group
- UI decreasing from 17% to 9%

Phelan, Kanaya et al. (2012)

Lifestyle modification interventions promoting weight loss as a tool to reduce urinary incontinence in men who are overweight or obese.

(Level of Evidence: 3)
Evidence from a small new RCT indicates that urinary frequency may be improved by smoking abstinence.

(Level of Evidence: 3).

LIFESTYLE

Lifestyle recommendations such as smoking cessation, healthy eating, appropriate body weight, avoiding excessive caffeine or alcohol are all part of a primary care approach.

Few trials have addressed the topic of lifestyle interventions alone for men with UI.

PELVIC FLOOR MUSCLE TRAINING (PFMT)

Timing

1) Preoperative RP PFMT
2) Pre-Operative and/or Post-Operative RP PFMT, Post RP Continence Status
3) Post-Operative PFMT Immediately Before or After Catheter Removal
4) Post-Operative RP PFMT for Incontinent Men

1) PREOPERATIVE RP PFMT
randomised preoperatively to PFMT plus proprioceptive training (n=60) vs PFMT alone (n=57).
innovative theoretical perspective
Delmastro [2010]
BUT
no difference between groups in continence at 14, 30 or 60 days
(Only abstract)
Tobia [2008]
6/8 (75%) of the intervention group compared to 4/8 (60%) of the control did not require pads at 8 weeks.
Ocampo-Trujillo et al. (2013)
no differences between intervention and control groups at any time point
Laurienzo (2013)

WHAT WE KNOW

Postprostatectomy incontinence is related to pelvic floor displacements observed with trans-perineal ultrasound imaging
WHAT WE KNOW

The Role of Preoperative Puborectal Muscle Function Assessed by Transperineal Ultrasound in Urinary Continence Outcomes at 3, 6, and 12 Months After Robotic-Assisted Radical Prostatectomy

Patricia Pita Neves1*, Michel O'Callaghan1
1School of Physiotherapy, University of South Australia, Adelaide, Australia
2School of Health and Exercise Sciences, University of South Australia, Adelaide, Australia
3School of Health and Exercise Sciences, University of South Australia, Adelaide, Australia

WHAT? Pubo-rectal function
What? Anal sphincter function

2) Pre-Operative and/or Post-Operative RP PFMT, Post RP Continence Status

Before post-op continence/incontinence was no established

Manassero 2007, Centemero 2010, similar results

(Level of Evidence: 1)

2) Pre-Operative and/or Post-Operative RP PFMT, Post RP Continence Status

Before post-op continence/incontinence was no established

found a significant difference in achieving continence at one, three and six months
Tienforti (2012)

there were no differences between the groups
Geraerts (2013)

3) Post-Operative PFMT Immediately Before or After Catheter Removal

Lamberti G. & Giraudo D.

what? PFMT plus ESlim and PFMT plus ESlim and BF compared to PFMT alone

more men continent at 12 and 24 weeks
Ahmed (2012)

recovery of urinary continence favoured the intervention group (PFMT with ESlim) at 12 months
Morihoro (2012)
4) Post-Operative RP PFMT for Incontinent Men

- PFMT with Digital Rectal Feedback (DRE) After Radical Prostatectomy

There are no trials to clarify whether PFMT taught by DRE offers any benefit over and above verbal or written instruction. (Level of Evidence: 2)

Pedriali (2014)

58% of the Pilates group and 50% of the EStim plus PFME achieved Continence

No further benefit of EStim when added to PFMT over PFMT alone (Level of Evidence: 2).

Laurienzo (2015)

PENILE VIBRATORY STIMULATION (PVS)

39 men with UI over one-year post RP randomised to two groups. (early and delayed PVS)

Results showed a significant improvement only in the early intervention group from baseline to 6 weeks. (Level of Evidence: 2)

Fode (2015)

The addition of MStim to PFMT does not appear to be beneficial. (Level of Evidence: 2)

Addition of MStim to Other Treatments

PELVIC FLOOR MUSCLE TRAINING (PFMT)

Conclusion

There is modest but inconsistent evidence that therapist delivered PFMT with or without BF or EStim before or after surgery may support an earlier return of continence after RP in some men up to 3-6 months post-surgery. (Level of Evidence: 2)
"La solution du bon sens est la dernière à laquelle songent les spécialistes."

Bernard Grasset, 1928

The common sense solution is the first one to be considered by specialists.
Affiliations to disclose:
- Astellas, Ipsen consultancy
- Andromeda, Digitimer, Laborie project grants

Funding for speaker to attend:
- Self-funded
- Institution (non-industry) funded
- Sponsored by:

Workshop 30 - PPI

New techniques to evaluate the degree of incontinence, degree of continence control

Sphincter / pelvic floor combination

Urethral Pressure Profiles

UPP with PPI
Possibilities for:
• Biofeedback
• MUCP / leakage relation
• Pelvic floor capacity
• Prognostic advice
How to select the technique?
Carlos D’Ancona
Professor of Urology
UNICAMP

Urinary Incontinence: post radical prostatectomy

2.9 a 87%
How was the information obtained?
- How long after surgery
- The rigor of the evaluation

Liss MA, J Urol, 2010;183: 1464-8

Mechanism of continence – anatomy

Bladder
Pelvic muscles
Rabdosphincter
Smooth muscle fibers

Urinary Incontinence  PRP

Causes of UI
- Sphincter lesion
- Detrusor overactivity

Associate factors
- Age
- Vesico urethral anastomosis stricture
- Tumor invasion of the sphincter

How to select the techniques?

Carlos D’Ancona

Affiliations to disclose†:
Ibsen – clinical trial

Funding for speaker to attend:
- Self-funded
- Institution (non-industry) funded
- Sponsored by:

THANK YOU
How to evaluate the patient?

1. Voiding Diary
2. Number of pads
3. Pad weight test
4. Quality of Life
5. Cystoscopy
6. Perineal ultrasound
7. Urodynamics

1. Voiding diary

2. Numbers of pads

Important for the diagnosis
No relation to the volume of leakage

3. Pad weight test

Volume of leakage
- 1 hour test
- 24 hour test

1 hour test

Minimum → < 1g
Mild → > 1 < 10g
Moderate → > 10 < 50g
Severe → > 50g

1 hour test

Does not reflect the normal activity of the patient
Can sub estimate the amount of leakage
24 hour test

Ideal 3 days
Classification:
- < 100g → mild
- 100 – 400g → moderate
- > 400g → severe

Nitti VW, Urol, (177), 2007

4. Quality of Life

Specific questionnaires
- ICIQ-SF
- King’s Health Questionnaire

Generic questionnaires
- SF 36
- Patient Global Impression of Improvement

4. Quality of Life

Specific questionnaires
- ICIQ-SF
- King’s Health Questionnaire

Generic questionnaires
- SF 36
- Patient Global Impression of Improvement

Validation of the “International Consultation on Incontinence Questionnaire - Short Form” (ICIQ-SF) for Portuguese

Jose Tadeu Nunes Tenorio, Miriam Dametres, Carlos Arturo Levi D’Alencara, Paulo Cesar Rodrigues Palma and Nelson Rodrigues Netto Jr

Disciplina de Urologia da Faculdade de Ciências Médicas, Universidade Estadual de Campinas, Campinas, SP, Brazil

Specific quality of life questionnaire for incontinent patient

Rev. Saude Públ, 2004

Urinary incontinence & Quality of Life

Significant Correlation between reduction of pad weight test and ICIQ-SF and PGI-I score

Twiss CD, Fischer MC, Nitti VW, Neumark & Urdy, 2007

5. Cystoscopy

0.4 a 32% urethral stricture

Should be treated before any surgery to promote continence
Good contraction of rhabdosphincter
Urethral mobility
But, how to quantify these variables?

6. Prienal Ultrasound

Parameters of two-dimensional perineal ultrasonography for evaluation of urinary incontinence after Radical Prostatectomy

27 patients incontinent after radical prostatectomy
34 control group

We can evaluate the contraction of the pelvic muscles and mobilization of the urethra
The urethral pressure profile began in 1969, when Brown and Wickham realized that there was a need to develop a simple and efficient method to evaluate the pressure inside the urethra.

Brown M; Wickham J.E.A : The urethral pressure profile. BJU Int 47:445-8, 1969
Concept of compression zone

The region of greater pressure in normal urethra receives the term of compression zone. It corresponds to the external sphincter.

Evaluation of sphincter activity by urethral pressure profile UPP

- Sphincter relaxed ($P_{ura\text{.max}}$)
- Sphincter under contraction ($P_{ura\text{.cont\_max}}$)

Catheter and traction

- Urethral catheter 10Fr
- 4 circumferential orifices at 5cm of the extremity of the catheter
- Extremity of the catheter was occluded
- Manual traction until localized the compression zone (area of greater pressure corresponding to rhabdosphincter)
Artificial sphincter placement - bladder neck - Sling - pelvic muscles

Study design

Group 1 (n=15)
Routine evaluation pre operative

Group 2 (n=10)
Repeated exams after surgery

Perform statistical analyzes

Relation between surgical results of Pura.cont.max and reposition test

<table>
<thead>
<tr>
<th>Patients</th>
<th>Pad weight test 24h (g) before</th>
<th>Pad weight test 24h (g) after</th>
<th>Pura.cont.max (max cmH2O)</th>
<th>Reposition test</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>750</td>
<td>450</td>
<td>120</td>
<td>Positive</td>
</tr>
<tr>
<td>17</td>
<td>200</td>
<td>0</td>
<td>181</td>
<td>Negative</td>
</tr>
<tr>
<td>18</td>
<td>80</td>
<td>0</td>
<td>188</td>
<td>Positive</td>
</tr>
<tr>
<td>19</td>
<td>1200</td>
<td>600</td>
<td>120</td>
<td>Negative</td>
</tr>
<tr>
<td>20</td>
<td>740</td>
<td>100</td>
<td>154</td>
<td>Positive</td>
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<tr>
<td>21</td>
<td>1200</td>
<td>570</td>
<td>36</td>
<td>Negative</td>
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<td>0</td>
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<td>670</td>
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<td>Negative</td>
</tr>
<tr>
<td>24</td>
<td>550</td>
<td>320</td>
<td>101</td>
<td>Positive</td>
</tr>
<tr>
<td>25</td>
<td>245</td>
<td>0</td>
<td>201</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Predictive Positive Value (PPV) for cure and improvement in accordance of Pura.cont.max

<table>
<thead>
<tr>
<th>Pura.cont.max</th>
<th>Number of patients</th>
<th>PPV (%) cure</th>
<th>PPV (%) improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>180</td>
<td>4</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>150</td>
<td>5</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>120</td>
<td>7</td>
<td>86</td>
<td>57</td>
</tr>
<tr>
<td>100</td>
<td>8</td>
<td>75</td>
<td>50</td>
</tr>
</tbody>
</table>

Relation between surgical results of Pura.cont.max and reposition test

3 did not complete the study
3 did not enter in the statistical analyzes
2 lost the follow up

The pelvic floor muscles play a major role to promote continence
Conclusion

1. Sphincter activity + Mobilization of the urethra
2. Pad weight test < 400ml
3. Pura.cont.max > 150cmH2O

Reposition Sling
Artificial sphincter

Great
Great

Artificial sphincter
Compressive adjustable Sling

Why perform all these test?

To identify the best technique to fit for the patient

Sling obtain more indication

Less complex
  • Age men, degenerative diseases
Less components
  • Lower revision procedures rate
Lower cost
It is possible implant artificial sphincter in the future
Case 1

67 year old patient
Radical prostatectomy 6 months ago
Complains of urinary incontinence
Four pads a day
ICIQ-SF – 21

Case 2

After 1 year...

Improvement of weight pad test → 50g/day

ICIQ-SF – 12

What to do?

Sling - TOT

Totally dry

The patient asks

• Can I exercise ?
• What are the recommendations ?
59 years
Radical prostatectomy
• Adenocarcinoma Gleason 3+3

Urinary incontinence
• > 10 pads/day
• PAD weight test: 920 g / 850 g

Underwent implantation of artificial sphincter

Post operative
• Dry
• Well adapted

2 years later

- Urinary incontinence
- 1 pad day
- Pad weight test: 35 g/day
Case 3

Mr. R. O. (DOB July 27, 1941)

1998: Radical P for T3 CaP with adjuvant radiation and 2 years of ADT
Mild to moderate SUI (1-2 pads/day)
2001: Transurethral injection of Macroplastique® x3 (as part of clinical trial)

Mr. R. O. (DOB July 27, 1941)

SUI worsened; Macroplastique eroded through injection site and removed transurethrally
Developed vesico-urethral anastomotic stenosis that settled with dilation and daily self cath.
Video-urodynamics
• Supine filling capacity 200 cc and SUI with coughing seen.
• Upright filling capacity 190 cc and DO up to 75 cm water

It was changed for a smaller cuff
What to do?

Mr. R. O. (DOB July 27, 1941)

SUI severe requiring condom drainage, no change with anticholinergics
May 2003: Insertion of artificial sphincter

Options for management
1. Change drug or increase anticholinergic
2. Add in AdVance sling or alternative
3. More injectable agent
4. Revise sphincter
5. Urinary diversion

Mr. R. O. (DOB July 27, 1941)

Sphincter activated and given anticholinergic for UUI
Persistent moderate SUI

Feb 2005: sphincter revision with addition of second cuff
• Improved to 1-2 pads/day; still taking anticholinergic
2009: increased leakage to 2-3 pads/day

Options for management
1. Change drug or increase anticholinergic
2. Add in AdVance sling or alternative
3. More injectable agent
4. Revise sphincter
5. Urinary diversion
Mr. R. O. (DOB July 27, 1941)

Feb 2009: Revision – 4 cm distal cuff replaced outside bulbospongiosus muscle
Sphincter activated 1 month later
UI markedly better, now on 10 mg solifenacin
Jan 2010 incontinence worsened
Cystoscopy – both cuffs looked functional
Video-urodynamics
  • Capacity: 200 cc with DO up to 70 cm water, contraction settled and VLPP 138 cm water

Options for management

1. Change drug or increase anticholinergic
2. Add in Advance sling or alternative
3. More injectable agent
4. Revise sphincter
5. Urinary diversion

Mr. R. O. (DOB July 27, 1941)

Sep 2010: Cystoscopy and 100u Botulinum toxin A injected
Oct 2010: 1 pad/day
Mar 2011: stable response but developed colorectal cancer and in Jul 2011 underwent APR
Sep 2011: repeat Botox (100u)
Repeat Botox q 6 mo. with good response

Case 4

57 years
Radical prostatectomy
Gleason 4.4
Urinary incontinence
Underwent reposition sling

Good results
But PSA relapse after one year
Underwent radiation therapy
Urinary incontinence
What is the proposal?

- Do nothing
- Another sling – compressive
- Artificial sphincter
  - Double cuff
  - Transcorporeal cuff

Case 5

65 year old
Radical retropubic prostatectomy
Diabetes – controlled
Artificial sphincter
18 months after surgery

Options:
- Remove all of the device?
- Only the pump?
- Antibiotics and suture?
Case 5

72 year old patient
Radical prostatectomy in 2015
Urinary incontinence and impotence since the surgery
Physiotherapy without improvement
AUS implanted

Results

• Unsatisfied
• Perineal pain
• Incontinence

What would you suggest?

Change the cuff to smaller size
Add one more cuff
Transcorporal cuff
Possible infection → antibioticotherapy
Erosion → removal of the system

Endoscopy without erosion
No infection
What are your recommendation?

Change cuff
POST PROSTATECTOMY URINARY INCONTINENCE: QUESTIONS THE PATIENTS ASK

WHAT TO DO IF THE PATIENT IMPROVES BUT IS STILL UNSATISFIED

Giulio Del Popolo
Neuro-Urology & Spinal Unit
Careggi University Hospital
Firenze - Italy

WHAT DO YOU WANT TO BE REALLY SATISFIED?

Duloxetine was shown to be complementary to PFMT with a synergic clinical effect demonstrated by a significant reduction of incontinence episodes in postprostatectomy incontinence, compared with PFMT alone.

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Conservative management for postprostatectomy urinary incontinence (Review)

BFB
Estim

Perineal Muscles Hypertrophy and Proprioception Improvement

Prostate Cancer
Pharmacologic Treatment in Postprostatectomy Stress Urinary Incontinence

Maria Teresa Filocamo, Vincenzo Li Marzi, Giulio Del Popolo, Filippo Cecconi, Donata Villari, Michele Marzocco, Giulio Nizza
Contemporary Management of Postprostatectomy Incontinence

Table 1: Recommendations for the diagnosis and treatment of postprostatectomy incontinence

- Early diagnosis and treatment of postprostatectomy incontinence are recommended.
- A complete and thorough diagnostic assessment should be performed according to the guidelines established by the European Association of Urology.
- Education and counseling should be provided to patients and their caregivers, focusing on lifestyle, diet, and physical activity.
- A multidisciplinary approach, including urologists, psychologists, and physical therapists, is recommended to address the complex nature of postprostatectomy incontinence.
- In patients with moderate to severe incontinence, pharmacological treatment, such as anticholinergics or alpha-blockers, may be considered.
- A trial of anti-incontinence devices, including external or internal pads, should be offered to patients with moderate to severe incontinence who are refractory to medical management.
- In patients with severe incontinence, surgical interventions should be considered, including artificial urinary sphincter insertion, bladder neck suspension, or pubovaginal slings.
- In patients with severe incontinence, temporary measures, such as the use of surgical mesh or the insertion of a double cuff device, may be considered as a bridge to definitive treatments.

Double Cuff

Temporary Continence

External Constrictor
**DO DRUG TREATMENT**

<table>
<thead>
<tr>
<th>DRUG</th>
<th>DOSE</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolterodine</td>
<td>1 – 2 mg</td>
<td>TID</td>
</tr>
<tr>
<td>Tolterodine XL</td>
<td>2 – 4 mg</td>
<td>Once-daily</td>
</tr>
<tr>
<td>Oxybutynin</td>
<td>2.5 – 5 mg</td>
<td>BID or TID</td>
</tr>
<tr>
<td>Oxybutynin XL</td>
<td>5 – 15 mg</td>
<td>Once-daily</td>
</tr>
<tr>
<td>Oxybutynin transdermal patch</td>
<td>3.9 mg/d</td>
<td>1 patch BW</td>
</tr>
<tr>
<td>Oxybutynin gel 10%</td>
<td>1 ml</td>
<td>Once-daily</td>
</tr>
<tr>
<td>Trosplum*</td>
<td>20 mg</td>
<td>BID or TID</td>
</tr>
<tr>
<td>Trosplum XL</td>
<td>60 mg</td>
<td>Once-daily or BID</td>
</tr>
<tr>
<td>Propiverine</td>
<td>15 mg</td>
<td>BID or TID</td>
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<tr>
<td>Propiverine XL</td>
<td>30 mg</td>
<td>BID or TID</td>
</tr>
<tr>
<td>Solifenacin**</td>
<td>5 – 10 mg</td>
<td>Once-daily</td>
</tr>
<tr>
<td>Solifenacin**</td>
<td>4 – 8 mg</td>
<td>Once-daily</td>
</tr>
</tbody>
</table>

**B3 Agonist**

- Mirabegron
  - 50 mg
  - Once-daily

**SOCIAL CONTINENCE**

- Urocondom

- Bladder Augmentation or Urinary Diversion
  - Enterocistoplasty can be made with gastric, ileal, ileocecal or sigmoidal segments.
Erectile dysfunction

Treatment options

➢ Physical management
➢ Pharmacological management
➢ Surgical management

Management of ED

PDE5-inhibitors

➢ Sildenafil (Viagra®) - effect 3-5 hours
➢ Vardenafil (Levitra™) - effect 3-6 hours
➢ Tadalafil (Cialis®) - effect 24-36 hours

Penile implants

Venous constrictive band and/or vacuum erection device

Technique of ICI

PDE5-inhibitors are contraindicated with concurrent use of nitrates

CONCLUSIONS

Patient is really satisfied if:
- He is post-op dry
- Maintain sexual activity post-op

OR IF:
- He is dry with conservative treatment or after surgical treatment for SUI or drugs for OAB
- Recovery of sexual activity with pharmacologic treatment

Other solutions can only reduce negative impact on QoL and prevent secondary complications

THANK YOU FOR YOUR ATTENTION