Overview of Lecture

- Primary Care Management Guidelines for Incontinence
- Newer forms of Specialist Management

“Tell me…and I forget, teach me…and I remember, involve me…and I learn”

(Benjamin Franklin)

Martha, a 57 year old woman presents with the complaint of increasing urinary incontinence.

What parts of the history are appropriate?
History

Urinary leakage

• **Circumstances:** Mixture of stress incontinence for 20 years since her last delivery and urge incontinence over the past two years.

• **Frequency:** Approximately twice per day.

• **Effect on quality of life:** Wears pads, changes twice a day.

**History continued…**

Urological

• **Urgency**
• **Daytime frequency:** >2 hourly
• **Nocturia:** twice
• **No voiding difficulty**
• **No dysuria, no UTIs, no haematuria**

**History continued…**

Bowel habit: Normal

Obstetric, medical, gynae:

• 3 vaginal deliveries
• “Smoker’s cough”
• No other predisposing factors
• No prolapse symptoms
• Menopause age 51
• Leakage with intercourse

**History continued…**

Previous incontinence/pelvic floor surgery:

None

Previous conservative management:

Tried pelvic floor muscle exercises postnatally - did not work.

**History continued…**

Drug / lifestyle:

• Coffee 5 cups/day.
• Smokes 10/day.
• No diuretics, alpha-blockers, HRT.
• Heavy lifting in part-time job as nurse aid.

**History Summary**

Martha, a 57 year old women presents with a complaint of mild stress incontinence since her last delivery 20 years ago and urge incontinence over the past 2 years.

She experiences leakage twice per day and wears pads and also experienced leakage with intercourse.

She experiences frequency, urgency and nocturia.

She has got no prolapse symptoms. She has had 3 vaginal deliveries. She has a smokers cough as she smokes 10 cigarettes per day, otherwise she is quite fit. She drinks 5 cups of coffee per day and her job as a Nurse Aid involves heavy lifting.

She has tried post-natal pelvic floor muscle exercises, which she was taught in a postnatal exercise class. She feels that these do not work.
What parts of the physical examination are appropriate?

Examination
80 kgs, otherwise general exam NAD.

- Abdominal exam: NAD
- Pelvic:
  - Atrophic vaginitis
  - No demonstrable stress incontinence
  - No uterovaginal prolapse
  - No pelvic masses
  - No residual
  - Poor pelvic floor muscle contraction
- Neurological: Simplified neurological exam NAD

Case Summary
Martha, a 57 year old women presents with a complaint of mild stress incontinence since her last delivery 20 years ago and urge incontinence over the past 2 years. She experiences leakage twice per day and wears pads and also experienced leakage with intercourse. She experiences frequency, urgency and nocturia. She has got no prolapse symptoms. She has had 3 vaginal deliveries. She has a smokers cough as she smokes 10 cigarettes per day, otherwise she is quite fit. She drinks 5 cups of coffee per day and her job as a Nurse Aid involves heavy lifting. She has tried post-natal pelvic floor muscle exercises, which she was taught in a postnatal exercise class. She feels that these do not work. She weighs 80kgs, has atrophic vaginitis with a poor pelvic floor muscle contraction.

What baseline investigations are appropriate in General Practice?

Investigations

- MSU / urinanalysis: NAD
- Urinary diary
What is your most likely diagnosis?

Detrusor Overactivity and Urodynamic Stress Incontinence

Regarding your subsequent management of this woman, would your primary choice of treatment, based on the best available evidence be:

1. Lifestyle interventions (decrease weight and caffeine, stop smoking, decrease heavy lifting) AND topical oestrogens
2. Refer for bladder retraining/pelvic floor muscle training
3. Start anticholinergic treatment alone
4. Refer for specialist opinion and urodynamics
5. Option 1 and 2
6. Option 1, 2 and 3
7. Option 1, 2, 3 and 4.

TREATMENT

Lifestyle interventions

Pelvic Floor Muscle Training (PFMT)

• Cochrane Review
  – Oestrogens may help incontinence especially urge incontinence but not when combined with progestogen
  (Moehrer et al. 2003)

• Vaginal oestrogens may improve urgency, frequency and recurrent UTIs

Pelvic Floor Muscle Training (PFMT)

• Lack of consistency in P.F.M.T. programmes

• 3 sets of 8-12 slow velocity maximal contractions sustained for 6-8 seconds, performed 3-4 times a week and continued for at least 15-20 weeks is recommended.

Oestrogens and Incontinence

• Weight reduction
• Relieving constipation
• Cessation of smoking/treatment of chronic cough
• Caffeine reduction/fluid management
• Reduction of physical forces (exercise, work)
• Postural changes

P.F.M.T.

• Assessed by a person with special training
  – correct contraction performed
  – ensure appropriate training intensity

• Expected rates of cure/improvement are 65-74% in short term

• Improvement in symptoms is a more common outcome than cure
The single factor that is consistently associated with positive outcome is motivation and/or compliance with the intervention.

Norwegian (selected) figures

- 70% of women still exercising more than once per week
- 70% improvement at 5 years

? Long term effectiveness of pelvic floor rehabilitation
Bladder Retraining

- 1st described by Jeffcoate and Francis in 1966 as “bladder discipline”
- Programme of patient education and a scheduled voiding regime

Patient Education and Scheduled Voiding Regime:

- Mechanisms of continence and incontinence
- Increasing voiding intervals
- Urgency control strategies
- Self monitoring of voiding behaviour
- Positive reinforcement by a clinician

Bladder Retraining

- Level 1 A evidence to suggest that for women with urge, stress and mixed incontinence, bladder retraining is more effective than no treatment

Presumed Diagnosis

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<th>Stress Incontinence</th>
<th>Mixed Incontinence</th>
<th>Urge Incontinence</th>
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<td>Lifestyle interventions</td>
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<tr>
<td>Pelvic Floor Muscle Training</td>
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<tr>
<td>Bladder Retraining</td>
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<td>Other physical therapy adjuncts</td>
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<td>Devices</td>
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<tr>
<td>Bladder relaxants</td>
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</tbody>
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You advise local oestrogens decrease coffee and refer for pelvic floor muscle and bladder retraining.

You see Martha back in 3 months.

She has noticed some improvement but is still troubled with her urge incontinence.

You decide to prescribe an antimuscarinic drug. Which of the following is the most EFFECTIVE?

1. Oxybutynin (ditropan)
2. Tolterodine (detrusitol)
3. Solafenacin
4. Oxytrol (transdermal patch of oxybutynin)

Detrusitol, Solafenacin and Oxytrol are as EFFICACIOUS as oxybutynin in reducing the symptoms of overactive bladder syndrome

BUT............
Patients on Detrusitol, Solafenacin & Oxytrol, in comparison with those on oxybutynin, were found to:

- Suffer less adverse events generally
- Less incidence of dry mouth
- Considerably less incidence of severe dry mouth
- Significantly decreased incidence of dose reductions
- Significantly decreased withdrawal rate.

Detrusitol, Solafenacin & Oxytrol are more EFFECTIVE in clinical practice in treating symptoms of overactive bladder syndrome

But.......NOT FUNDED!

Lifestyle Interventions
Pelvic Floor Muscle Training
Bladder Retraining

- Other physical therapy adjuncts
- Devices

Bladder relaxants

8-12 weeks 70% effective in primary care

Failure

SPECIALISED MANAGEMENT & Urodynamics

New Developments for Treating Detrusor Overactivity

Sacral Nerve Stimulation for Detrusor Overactivity

Sacral Nerve Stimulation
Sacral Nerve Stimulation

- 60% success at 5 years
- Surgical revision in about 30% of cases
- Cost $16,000
- ? Place for intractable and refractory overactive bladder syndrome

Botox Injection

- Theory: Paralyse detrusor
  - If inactive, can’t be overactive
- Technique
  - Bladder LA instillation
  - 20-30 endoscope guided injections
  - Dome, walls
  - ? Avoid trigone - reflux
  - 200 - 300 IU total

Botox Injection

- General Results
  - Effective
  - How effective & how long for?
  - Idiopathic & neurogenic respond equally well
  - Side effects
    - Need for self-catheterisation
    - ? Increased number of UTIs
    - More side effects may emerge

Lifecycle of Incontinence

Success is:
At age 4 - not peeing in your pants
At age 12 - having friends
At age 16 - having a drivers license
At age 20 - having sex
At age 35 - having money
At age 60 - having sex
At age 70 - having a drivers license
At age 75 - having friends
At age 80 - not peeing in your pants

You next see Anne, a 45 year old woman complaining of predominantly stress incontinence, who returns for a follow-up visit after having had 6 months of supervised pelvic floor muscle training. She has noticed some improvement, but is still bothered by incontinence in exercise, with coughing, and with laughing, and she also has some daytime frequency.
She weighs 130kgs.

No pelvic abnormality.

You refer her for urodynamics.

Urodynamics

Will diagnose principally:

• Urodynamic stress incontinence and type

• Detrusor overactivity

• Voiding dysfunction

A diagnosis of urodynamic stress incontinence with bladder neck hypermobility is made. What would be the most appropriate treatment now?

1. Advise her that she needs to lose 30kg or more before any surgery could be done.
2. Ask her to consider a device to support the bladder neck.
3. Offer an open colposuspension.
4. Offer a TVT with appropriate counselling.
5. Offer a macroplastique injection
TVT tape placement

Tension-Free Support for Incontinence
A diagnosis of urodynamic stress incontinence with bladder neck hypermobility is made. What would be the most appropriate treatment now?

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3. Offer an open colposuspension.
4. Offer a TVT with appropriate counselling.
5. Offer a macroplastique injection

Gynecare TVT

- TVT was first described by Ulmsten and colleagues in 1996
- The aim was to develop a
  - simple, minimally invasive
  - day only procedure
  - using local or regional anaesthesia to correct stress incontinence
- TVT utilises the concept of mid urethral support without tension
- To date more than a million women have been treated with TVT
- Continued high success rate between 86% (Nilsson) and 92% (Meschia)

Stanton S. Int Urogynecol J (2001)

**Tape Adjustment**

- Tape adjustment made with Metzenbaum scissors between tape and urethra
- Tape loops in tension free state

**Final Tape Position**

- Remove plastic sheaths one side at a time with counter pressure applied with Metzenbaum scissors.
**TVT - Possible Complications**

<table>
<thead>
<tr>
<th>Complication</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant voiding difficulty</td>
<td>5/130</td>
<td>3.8%</td>
</tr>
<tr>
<td>Infection</td>
<td>2/130</td>
<td>1.5%</td>
</tr>
<tr>
<td>UTI</td>
<td>8/130</td>
<td>6.2%</td>
</tr>
<tr>
<td>Haematoma</td>
<td>2/130</td>
<td>1.5%</td>
</tr>
<tr>
<td>Bladder Perforation</td>
<td>5/130</td>
<td>3.8%</td>
</tr>
<tr>
<td>Urge Symptoms</td>
<td>5/130</td>
<td>3.8%</td>
</tr>
<tr>
<td>Tape Rejection</td>
<td>0/130</td>
<td>0%</td>
</tr>
</tbody>
</table>

(Prof C Nilsson, Helsinki University)

If safe, this (TVT) will be the most exciting and innovative procedure for stress incontinence in the last 40 years, and one which now clearly rivals the colposuspension.

(Stuart Stanton 2001)

**The Golden Mean**

Almost every progress in our art is apt to become at first disproportionately exaggerated then equally disproportionately deprecated and finally to emerge often enough, if at all, with considerable diminution of its original prestige.

(Felix Semon 1901)

**Towards Effective Management of Incontinence**

Cochrane Incontinence Review Group

57 Reviews and 18 Protocols (2008)

**Conclusions**

- Urinary incontinence is a common and distressing problem for women
- Primary care management involves history, examination, simple tests and predominately conservative and in some cases, pharmacological treatment
- 70% effective

**Conclusions continued...**

- Specialist management involves urodynamics
- Newer self-fixing suburethral slings are highly effective for urodynamic stress incontinence
'Tell you what I dread most — to contaminate.'