

Topic	Speakers
Section 1: POP and OAB	
Welcome and POP and OAB, the chicken or the egg?	A/Prof Caroline Dowling
Let's treat the POP first: evaluation, the role of pessaries, surgical specifics with repair	Dr Felicity Gould
Let's treat the OAB prior to the POP, medical and third line treatment	Dr Eva Fong
Physio in the management of OAB in the POP patient	Ms Shan Morrison
Short break and questions	All
Section 2: SUI and POP	
How has the post mesh era changed our options and surgical counselling for concomitant treatment of SUI and role of UBA?	A/Prof Caroline Dowling
Physiotherapy in first line management of SUI and POP	Ms Shan Morrison
Role, timing and method of a Mesh Mid Urethral Sling or a Burch colposuspension in patients with POP and SUI	Dr Felicity Gould
Role, timing and method of Pubovaginal Fascial Sling in patients with POP and SUI	Dr Eva Fong

Aims of Workshop

- Attendees will learn how to manage patients and counsel them in relation to POP coexisting with OAB and the timing and nature of SUI management
- Using clinical examples and operative examples we will give participants better skills in the discussion and delivery of these important treatment options to their patients, let's start thinking about FUNCTION
- The treatment paradigm as to which condition to target first and whether the correction of the POP will improve the OAB will be explored
- The management of concomitant stress urinary incontinence (SUI) in the post mesh era looking at the conservative and operative alternatives and how they fit into POP surgery timing and counselling

Take home messages

- Think functionally not anatomically
- Management is all about the counselling of options in relation to surgery
- Patient's tolerance for uncertainty impacts their decision making on SUI management in POP
- It is hard to simplify the advice to binary rules
- The capacity to individualise may be proportional to the clinician skill set – clinicians should be aware of all options possible and refer as required
- Pessary trials and staged treatment is valuable
- Consider central neurological factors in OAB and POP
- PFMT needs adherence and quality to be effective

Personalised treatment taking into account the patients most bothersome symptoms and comorbidities is essential

Target Audience

Urology, Urogynaecology and Female & Functional Urology, Conservative Management

Advanced/Basic - Advanced

Suggested Learning before Workshop Attendance

<https://www.safetyandquality.gov.au/publications-and-resources/resource-library/treatment-options-stress-urinary-incontinence-sui>

Tse V, King J, Dowling C, English S, Gray K, Millard R, O'Connell H, Pillay S, Thavaseelan J; Urological Society of Australia and New Zealand; Urogynaecological Society of Australasia. Conjoint Urological Society of Australia and New Zealand (USANZ) and Urogynaecological Society of Australasia (UGSA) Guidelines on the management of adult non-neurogenic overactive bladder. *BJU Int.* 2016 Jan;117(1):34-47. doi: 10.1111/bju.13246. Epub 2015 Oct 12. PMID: 26456313.

de Boer TA, Kluivers KB, Withagen MI, Milani AL, Vierhout ME. Predictive factors for overactive bladder symptoms after pelvic organ prolapse surgery. *Int Urogynecol J.* 2010 Sep;21(9):1143-9. doi: 10.1007/s00192-010-1152-y. Epub 2010 Apr 24. PMID: 20419366; PMCID: PMC2910298.

Topic Summaries

Section 1: POP and OAB

Welcome and POP and OAB, the chicken or the egg? A/Prof Caroline Dowling, Urologist, Australia

There is evidence to support POP as a cause of OAB from prevalence studies and improvement in OAB with POP treatment. However, this could be association as it is not related to stage, compartment and response to medication. POP may contribute to OAB through BOO, traction around the bladder neck and an elevated PVR. There is usually more than one factor at play when POP is contributory to OAB.

Let's treat the POP first. Dr Felicity Gould, Urogynaecologist, Australia

Patients rarely present with isolated pelvic floor disorders, and instead usually have varied constellation of pelvic floor symptoms including bladder, bowel, prolapse and sexual bother. Pelvic floor disorder management is best achieved with an individualised approach based on the make of symptoms, patients bother, patient expectations and thorough examination and assessment.

Understanding and knowing the ICS/IUGA PFD terminology (Haylen 2010) and using this as a framework to address symptoms and signs is very helpful. Listening to the patient and asking a thorough pelvic floor history, will help to establish the primary points of "bother". Prolapse examination includes assessment of external genitalia, Bimanual examination, Speculum and POPQ. The role of Bladder Diary is invaluable in the assessment of PFD.

Vulvovaginal Atrophy (Genitourinary syndrome of Menopause) can be a forgotten but powerful contributor to many symptoms of PFD. The role of Oestrogen on the bladder and vaginal walls includes collagen remodelling and promotion of lactobacilli proliferation. Treatment with vaginal oestrogens is safe in nearly all post-menopausal women and should be encouraged.

Pessaries are generally extremely safe and it is a reversible option for prolapse management. At least 60% of women when trial a pessary will go on use one longer term (Cochrane). Pessary management suits a range of women with prolapse including those who wish to continue childbearing, those who are too frail for surgery, those who wish to avoid surgery. Pessaries should be offered to all women with prolapse prior to undergoing surgery. Pessaries can be a useful tool to treat and management urinary urgency and voiding dysfunction in women with cystocele. This group of patients can see significant improvement in bladder symptoms after pessary placement, however it can take 4-6 weeks for pessary to have full impact of improvement on OAB symptoms. The key to successful pessary fitting, includes preoperative counselling, use of vaginal oestrogen and experience in fitting.

Let's treat the OAB prior to the POP, medical and third line treatment Dr Eva Fong, Urologist, New Zealand

What are the options? - Lifestyle changes, pelvic floor physiotherapy. Medication. Third line therapies

Medication:

There is limited peer-reviewed literature addressing this question. Options are

1. Anticholinergic therapies: - Key point: emerging and current evidence :counsel your patients are about association between these medication and cognitive impairment. Studies show inferior to POP surgery in concurrent OAB and POP (10-14% efficacy vs about 40% for surgery)
2. B-3 agonists : no studies

Third line therapies

Also limited literature. Options are:

1. Botulinum toxin n=30 (7 POP, 23 w/o POP-
 - a. Vague outcomes, similar rates of "very happy" patients
2. PTENS – no studies
3. Sacral neuromodulation
 - a. No studies of POP alone
 - b. 1 study of SUI/ POP group
 - i. 1 study included pts with prior SUI/POP surgery
 - ii. Bartley et al: 201 pts, 108 with prior SUI/ POP surgery
 - iii. At 6 and 12 months, the prior SUI/POP surgery group were more likely to still be leaking

Take home - This area has a paucity of peer-reviewed literature. Taken together current evidence suggests surgery is superior to other options for resolution of OAB where OAB and POP co-exist.

How successful is surgery at resolving OAB with POP? 30-80%

- Difficult to currently identify predictive factors. (contradictory findings with respect to POP stage, bladder outlet obstruction may be negative predictive factor)

References;

Johnson, Justine R. MD*; High, Rachel A. DO[†]; Dziadek, Olivia MD[‡]; Ocon, Adriana BS[§]; Muir, Tristi W. MD^{||}; Xu, Jiaqiong PhD[¶]; Antosh, Danielle D. MD^{||} Overactive Bladder Symptoms After Pelvic Organ Prolapse Repair, Female Pelvic Medicine & Reconstructive Surgery: December 2020 - Volume 26 - Issue 12 - p 742-745 doi: 10.1097/SPV.0000000000000700

Physio in the management of OAB in the POP patient Ms Shan Morrison, Physiotherapist, Australia

This presentation will provide an overview of first line conservative management for pelvic organ prolapse (POP), overactive bladder (OAB) and stress urinary incontinence (SUI) utilising a biopsychosocial diagnostic reasoning framework that combines assessment and treatment. It will highlight current clinical controversies, challenges and new directions. The initial interview should always incorporate validated patient related outcome measurement tools that provide symptom information and quality of life impact. This information is combined with results from clinical tests to form primary and differential diagnoses and inform treatment options.

It has been well documented that the mainstays of both POP and OAB management is pelvic floor muscle training (PFMT), lifestyle interventions, pessaries and bladder training (Abrams et al ICI 2017). There is minimal literature specifically looking at outcomes when these conditions co-exist, however neither condition was an exclusion criterion in most studies, so we could assume some subjects had both. There is good evidence for benefits of PFMT in mild to moderate POP however variable evidence of PFMT for OAB. Bo et al published a systematic review in 2020, finding studies had poor methodology and short follow up. Bladder training takes on varied forms, a recent ICS consensus statement (Booth et al 2019) concluding that the mechanisms underpinning this remain poorly understood. Following on from work done by Derek Griffiths et al in 2007 looking at cerebral control of the bladder and publications by De Witter et al in 2011 around the concept of sensory modulation of the bladder, Rebekah Das completed a PhD in 2014. She wrote *"The view that urgency reflects underlying detrusor overactivity has been revealed to be too simplistic. Urgency is now viewed as a multidimensional sensory experience of complex and uncertain aetiology,"*. Since then many researchers have identified central changes with Dr William Reynolds (2016) concluding that an understanding of the pathophysiology and clinical manifestations of central sensitisation in OAB could provide a novel approach to managing the condition and improving outcomes. The presentation shares a clinical experience of measuring central sensitisation and profiling patients distress to gain a greater understanding of these drivers in OAB. The new findings have led to increased attention on the cognitive components of behavioural therapy for OAB. A systematic review (Reisch et al 2021) hypothesised that there are likely different phenotypes of OAB with alternative underlying mechanisms. Maybe concepts from research into chronic pain may transfer well to the treatment of chronic urinary urgency, such as neurophysiological education and mindfulness strategies. It has been recently proposed that central sensitisation is also a factor we should be considering in POP. Monika Vij and colleagues (2021) finding the presence of central sensitivity syndromes led to less favourable outcomes following POP surgery.

Thorough and competent pelvic floor muscle assessment is essential in being able to achieve evidence-based PFMT intervention. An extensive 2021 ICS report (Frawley et al) outlining symptoms, signs, investigations and diagnoses is now available and is a must read for all those assessing the pelvic floor and designing individualised PFMT programs. All peak bodies provide a level 1 Grade A recommendation of PFMT for both SUI and POP, specifying regular clinician supervision for a minimum of 3-4 months. There are many factors that can influence success, some modifiable, some not. PFMT is complex, the program must ensure correct technique, be individualised and based on assessment, utilise principles of motor skill learning and muscle physiology, be applied to function, provide feedback and progression and ensure adherence and motivation. We can influence this final factor, applying evidence-based recommendations to facilitate health behaviour change through establishing a positive therapeutic alliance, goal setting, motivational interviewing, building self-efficacy and setting realistic expectations. Although not yet supported by robust evidence, it is plausible that ongoing lifestyle modification and PFMT could enhance the outcomes of surgery for POP and SUI.

Bo, K, Fernandes, A, Duarte T, Brito L, Ferreira G, 2020. Is pelvic floor muscle training effective for symptoms of overactive bladder in women? A systematic review. *Physiotherapy*, 106, 65-76.

Frawley H, Shelly B, Morin M, Bernard S, Bo K, Digesu G, Dickinson T, Goonewardene S, McClurg D, Rahnamai M, Schizas A, Sliker-ten Hove M, Takahashi S, Geuvara J, 2021. An International Continence Society (ICS) report on the terminology for pelvic floor muscle assessment. *Neurourology and Urodynamics*, 10.1002/nau.24658

Reisch B, Das R, Gardner B, Overton, K, 2021 Cognitive components of behavioural therapy for overactive bladder: a systematic review. *International Urogynaecology Journal*, 10:1007/s00192-021-04720-2

Vij, M, Dua A, Davies A, Freeman R, 2021 Do Patients with central sensitivity syndromes have poor subjective outcome despite anatomical cure from pelvic organ prolapse surgery? *International Urogynaecology Journal* 32: 1461-1467.

Section 2: SUI and POP

How has the post mesh era changed our options and surgical counselling for concomitant treatment of SUI and role of UBA A/Prof Caroline Dowling, Urologist, Australia

80% of women have coexisting SUI and POP, concomitant treatment is frequently debated. In the era post mesh litigation, with higher risk attributed to MUS, there is less enthusiasm for treatment concomitantly. Urethral bulking agents (UBA) are also best delivered sequentially. UBA use has increased by 30% in the post mesh era. UBA offers a minimally invasive day case option which is a more appropriate proposition if therapy is to be staged. Treatment should be considered as universal, selective or staged with most support for a selective or staged approach. Counselling is key. International guidelines support consideration for selective treatment and algorithms for treatment decision making are of assistance to the clinician.

Physiotherapy in first line management of SUI and POP Ms Shan Morrison, Physiotherapist, Australia – see above summary

Role, timing and method of a Mesh Mid Urethral Sling or a Burch colposuspension in patients with POP and SUI Dr Felicity Gould, Urogynaecologist, Australia

Surgical management of concomitant prolapse and SUI is a much researched and written about topic. Key considerations include assessment level of both of the individual conditions and the patient's post-operative expectations/goals post-surgery. Urodynamic studies are helpful in both understanding the clinical significance of SUI and in assessing risk of voiding dysfunction and occult SUI. We recommend Urodynamic assessment in virtually all instances.

The benefits of concomitant SUI and prolapse surgery includes reduced risk of needing second procedure and a single surgical recovery. The risks of concomitant SUI compared with staged surgery include: possible unnecessary interventions with surgical risk, Voiding dysfunction and OAB. Patients with bothersome and demonstrable SUI prior to prolapse surgery will usually benefit from concomitant surgery. Other groups required a more tailored approach.

Choice of SUI procedure depends on a number of factors including, patient wish, Urodynamic results, planned route of prolapse surgery, previous pelvic surgery, medical history (ie smoking). Surgeon experience should not preclude suitable options being offered to patients and onward referral if required. Ultimately the best outcomes are achieved when care is individualized, all options and considered and time is spent planning with the patient and managing/assessing expectations and goals.

Role, timing and method of Pubovaginal Fascial Sling in patients with POP and SUI Dr Eva Fong, Urologist, New Zealand

Comparative outcomes for fascial sling vs other non-mesh procedures:

- Fascial sling vs Burch:
 - Sister trial showed superiority of PV sling > Burch for SUI - 66% vs 49%
 - Higher rates of UTI, urgency and voiding problems in sling group
- Fascial sling vs synthetic sling - Similar dry and improvement rates at 1 and 10 years (Khan et al)

Role

- Reasonable non-synthetic option for concurrent POP and SUI surgery. Minimal data on this
- 2 recent small studies of total autologous fascia lata repair with PV sling and fascial sacrocolpopexy with fascial sling (in some participants) - Significant rate of urinary retention in the first study (in complex population and resolved with sling loosening)

How to do a PV sling. Key points:

- Informed consent
 - Sling/ trocar related risks – bladder, vascular, bowel
 - Specific risks of graft harvest – wound infection (8%) hernia, seroma (Thigh or lower abdomen)
 - Risks of urinary retention and voiding dysfunction - up to 14% urinary retention, undefined risk of long term CIC. De novo OAB 3-18%
 - Pelvic haematoma
- Key technical points
 - Tensioning should be loose (Preece et al)
 - Mid urethral placement (Osman et al: 100% resolved or improved, 2% CIC rate in primary slings)
 - Recommend early loosening (<2 weeks) if unable to void

Khan ZA, Nambiar A, Morley R, Chapple CR, Emery SJ, Lucas MG. Long-term follow-up of a multicentre randomised controlled trial comparing tension-free vaginal tape, xenograft and autologous fascial slings for the treatment of stress urinary incontinence in women. BJU Int. 2015 Jun;115(6):968-77. doi: 10.1111/bju.12851. Epub 2014 Oct 22

Osman NI, Hillary CJ, Mangera A, Aldamanhoori R, Inman RD, Chapple CR. The Midurethral Fascial "Sling on a String": An Alternative to Midurethral Synthetic Tapes in the Era of Mesh Complications. Eur Urol. 2018 Aug;74(2):191-196. doi: 10.1016/j.eururo.2018.04.031. Epub 2018 May 24. PMID: 29803585.

Optimising the tension of an autologous fascia pubovaginal sling to minimize retentive complications Patrick D. Preece, Garson Chan, Helen E. O'Connell, Johan Gani