Conservative and Surgical Management of Stress Urinary Incontinence

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Stress Urinary Incontinence (SUI), the involuntary leakage of urine on effort or exertion or on sneezing or coughing, affects 5 to 48% of women between the ages >18 and <60 year olds.

In general, a trial of conservative therapy is advisable to surgical treatment of its low risk profile. Conservative therapy includes Pelvic Muscle Exercise (PME) with or without bio-feedback or incontinence pessaries. Pharmacological treatment with Duloxetine (SSRI) has been investigated, but its efficiency is very modest and the drug side effects are a concern.

Women who decline or have insufficient improvement following conservative therapy, there are a variety of surgical treatments.

Since the introduction of Mid-urethral slings in 1990, these procedures have become the procedure of choice for primary surgical treatment of SUI (Gold standard). Midurethral slings are as effective as Retropubic Colposuspension and bladder neck slings, but have a shorter operative duration and a lower risk of certain post-operative complications.

Pre-operative counselling of patients is needed to optimise patient's individual goals and expectations for her treatment and awareness of potential adverse events.

The prevailing evidence supports using a vaginal approach for surgical incontinence procedures e.g. Midurethral slings, injections of Urethral bulking agents.

Abdominal approach, the modified Bruch Retropubic Colposuspension can be performed via Laparatomy, conventional Laparoscopy or robot assisted Laparoscopy.

The following procedures, anterior Colporrhaphy, Para Vaginal repair and Trans Vaginal needles suspensions are no longer recommended.

Conclusion summary:

1. For most healthy women with SUI who desire surgical treatment, the recommendation from different meta-analysis is mid-urethral sling rather than burch colposuspension or bladder neck sling (Grade 1b).

2. For women undergoing full length mid-urethral sling placement transobturator rather than Retropubic (Grade 2 B).

3. Women who decline and cannot tolerate surgery, but have failed conservative therapy, injection of Peri-urethral bulking agents is suggested (Grade 2c).

4. Single incision Mid-urethral sling are a relatively new development, there is no data to make recommendation to support.