Stress urinary incontinence and synthetic mesh midurethral slings in women

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1 Stress urinary incontinence is common and considerably affects quality of life

Stress urinary incontinence has a prevalence of 10%–40% and is considered severe in 3%–17% of women worldwide.[1] Diagnosis involves demonstrating involuntary urine leakage with increases in intra-abdominal pressure (e.g., exercising, coughing). On history, it is important to differentiate this leakage from symptoms like urgency, frequency and nocturia, as these may indicate mixed urinary incontinence or overactive bladder.

2 Conservative treatments include incontinence pessaries and pelvic physiotherapy

Pessaries physically support the urethra to prevent leakage. Pelvic physiotherapy can improve stress urinary incontinence by strengthening the muscles that support the urethra and has shown benefit for other types of incontinence.[2]

3 Synthetic mesh midurethral sling is an effective treatment

This procedure has been shown to cure stress urinary incontinence in more than 80% of patients who do not respond to conservative treatments.[1] The mesh used in midurethral slings is not associated with the same complications as mesh used for pelvic organ prolapse.[3] For patients who wish to avoid mesh-based surgery, more invasive surgical options are available.[1]

4 Patients who are postmenopausal are at higher risk of exposure of the mesh in the vagina

Mesh exposure occurs in 1%–2% of patients after synthetic mesh midurethral sling procedures.[4,5] This can present as vaginal discharge, bleeding, dyspareunia, partner pain or pelvic pain.[4,5] Local vaginal estrogen can be used regularly and indefinitely to improve small erosions (< 0.5 cm). More extensive exposure may need surgical management.[4,5]

5 Early complications usually resolve and later complications are uncommon

Early complications occur within 30 days of surgery and have been reported in 1.7%–2.4% of patients.[4] These most frequently include urinary tract infection, urinary retention, pain at the surgical site and bladder injury.[4] Later complications usually occur within 2 years of surgery and include urinary urgency, pelvic or groin pain, voiding dysfunction, recurrent incontinence and mesh exposure.[4,5] Readmission for postoperative complications within 5 years of surgery has been reported in about 6% of patients.[4]

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