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REMOVAL OF SYNTHETIC TAPES AND MESHES: SURGICAL INDICATIONS AND OUTCOMES

Hypothesis / aims of study
Tapes and meshes used for the treatment of stress urinary incontinence (SUI) and pelvic organ prolapse can lead to complications that require additional surgical procedures. Our objective was to evaluate the indications and clinical outcomes of patient who suffered tape/mesh surgical revisions.

Study design, materials and methods
After institutional review board approval, this original retrospective study was conducted in a tertiary referral center and included all consecutive women who underwent a synthetic tape/mesh surgical revision, from January 2008 to September 2016. For all eligible subjects, the following data were collected: demographics, past medical history, information on initial synthetic tape/mesh surgery if available, symptoms preceding revision surgery, surgical revision indication, postoperative complications and their management. Complications of the initial synthetic tape/mesh were classified according to the ICS/IUGA prosthesis complication classification.

Results
Overall 140 women, with a mean age of 60.5 (range 35-91) years, had a tape/mesh surgical revision. Patients underwent the following surgeries: tape removal (n=95/140, 67.9%), tape division (n=23/140, 16.4%), mesh removal (n=18/140, 12.9%) and concomitant tape/mesh removal (n=4/140, 2.9%). Tape removals were performed for voiding symptoms (n=34/95, 35.8%), vaginal erosion/extrusion (n=16/95, 16.8%), pelvic pain/dyspareunia (n=10/95, 10.5%), urethral erosion (n=10/95, 10.5%), bladder erosion (n=8/95, 8.4%), storage symptoms (n=4/95, 4.2%), and mixed urinary symptoms/pain (n=13/95, 13.7%). Most mesh removal surgeries were performed for vaginal erosion/extrusion (n=8/18, 44.4%). Figure 1 details the initial tape/mesh complications according to the ICS/IUGA prosthesis complication classification. Mean interval between tape/mesh insertion and its surgical revision was 52.1 months (range 5.0 days-16.0 years). Tape removals and divisions were performed using a vaginal approach in 65/95 (68.4%) and 22/23 (95.7%) patients, respectively. 21/95 (22.1%) patients underwent a laparoscopic complete tape removal. Mesh revision surgeries were performed using a vaginal, laparoscopic or open approach in 10/18 (55.6%), 5/18 (27.8%) and 3/18 (16.7%) patients, respectively. 14/140 (10.0%) patients underwent combined surgical approaches. Mean follow-up up time was 20.4 months (range 6.0 days-7.8 years). Voiding and storage symptoms resolved completely in 37/59 (62.7%) patients and in 14/37 (37.8%) patients, respectively. Pelvic pain/dyspareunia resolved completely in 30/47 (63.8%) patients. Revision surgery complications are detailed in Figure 2. 42/81 (51.9%) patients with postoperative SUI recurrence or persistence underwent an additional surgical procedure: 17/81 (21.0%) tapes, 17/81 (21.0%) artificial urinary sphincters, 6/81 (7.4%), ACT balloons and 2/81 (2.5%) fascial slings.

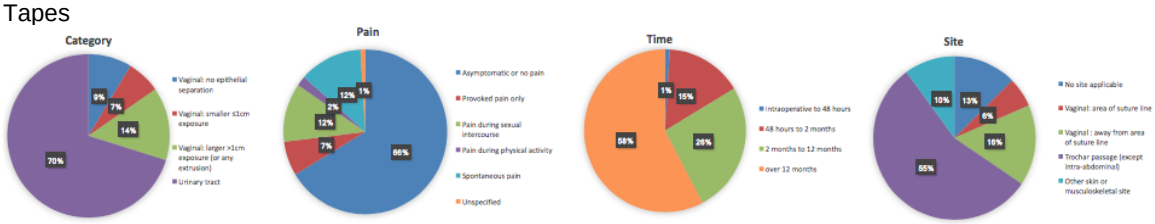
Interpretation of results
Surgical indications for tape/mesh surgical revisions are multiple and diverse ranging from vaginal erosion/extrusion to infections. Revision surgery indication and postoperative complication rates in this current study are comparable to what has been reported in the literature. The fact that revision surgeries can lead to the recurrence of patients' initial complaints and/or can fail to alleviate their symptoms emphasizes the complexity of such surgeries.

Concluding message

Complications related to tapes and meshes can require a surgical revision. Although most symptoms resolved after surgical revisions, patients must be informed that symptoms may persist. Recurrent or persistent SUI may require a subsequent surgical procedure.

Figure 1: Tapes and Meshes complications according to the ICS/IUGA prosthesis/graft complication classifciation code

Tapes



Meshes

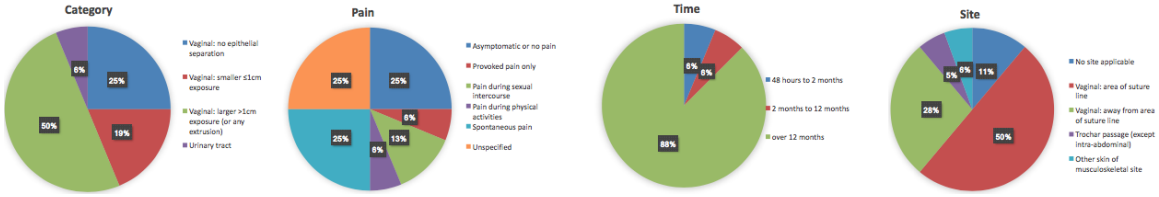
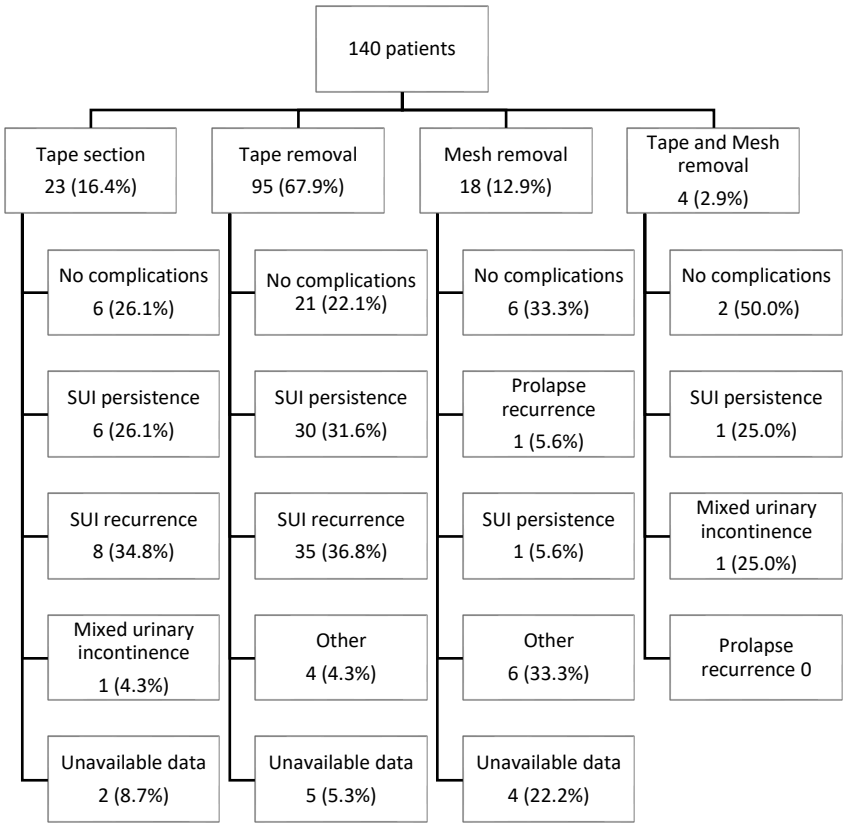


Figure 2: Revision surgery complications



Disclosures
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