

and occupational exposure are summarized and commented, and many new information on dietary changes (fat, soy bean, vitamins, selenium) and nonsteroidal anti-inflammatories are given. With this paper at hand, a well-founded answer to the above question is possible.

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## FEMALE UROLOGY

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### **A Magnetic Resonance Imaging-Based Study of Retropubic Haematoma after Sling**

#### **Procedures: Preliminary Findings**

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**Objective:** To determine, using magnetic resonance imaging (MRI), the incidence of retropubic haematoma and any associated clinically significant effects after a xenograft (porcine dermis) sling (XS) or the tension-free vaginal tape (TVT) procedure.

**Patients and Methods:** Between October 2003 and March 2004, 24 consecutive patients presenting with stress urinary incontinence (SUI) were enrolled in this prospective study; 12 each underwent an XS or TVT procedure. A vaginal balloon pack was used for only 3 h after XS and not after TVT. All patients had pelvic MRI 6-8 h after surgery. The primary outcome measure was the incidence and distribution of retropubic haematoma after each sling technique. Secondary outcome measures included the interval to the first three spontaneous voids, the bladder emptying efficiency of the first three voids, a visual analogue scale pain score at 24 h after surgery, and the short-term (6-month) cure rate for SUI.

**Results:** Overall, six (25%) patients (four XS and two TVT) developed a retropubic haematoma. Most commonly, they spread along the right paravesico-urethral space between the right half of the levator ani and the bladder neck. Patients with large haematomas took significantly longer to void (median 14.5 vs 6.0 h,  $P = 0.048$ ). There was no difference in pain score in patients with or without haematoma. None of the patients had clinically detectable haematomas in the suprapubic wound. All six patients with haematomas were cured or improved at the 6-month follow-up.

**Conclusions:** MRI is a useful noninvasive method for detecting retropubic haematomas soon after surgery. There was a surprisingly high incidence of retropubic haematomas, especially after the XS procedure. Retropubic haematomas may influence postoperative voiding efficiency.

#### **Editorial Comment**

The authors review 24 patients who underwent a suburethral sling using either xenograft or tension free vaginal tape. All patients had a pelvic MRI approximately 6-8 hours after surgery. The MRI was utilized to evaluate for

the development of a retropubic hematoma. The radiographic findings were then correlated to the presence of voiding or voiding dysfunction and pain postoperatively. The authors found that 25% of the patients developed a retropubic hematoma with a degree of lateralization to the right. There was no difference in the pain perceived by patients with or without hematoma and those with large hematomas took a greater time to normal voiding. All patients with hematomas were either cured or improved at their last follow-up.

This is an interesting report and raises many clinical questions. That only 25% of patients had a hematoma detected at 4-6 hours postoperatively may strike many patients as surprising. In addition, that there was some lateralization to the patient's right does indicate that there may be the potentiality that hematomas are somewhat technically based more on the surgeon's dominant hand than on the patient's anatomy. Many surgeons historically have found that hematoma formation may not be such a bad thing with regards to operative success. Classically, the success of an MMK was based on the formation of a retropubic scarification fixing the bladder neck and proximal urethra in a retropubic procedure. In fact, Lee et al in a publication in 1979, upon performing a secondary repair found that those patients that were redo's had inadequate scarification and the authors subsequently coined the "alleged MMK" (1). Of note is that both techniques had hematomas though the xenograft had four hematomas while the TVT had two. Thus indicating a potential technique related incidence of hematoma generation as opposed to patient's anatomy. The patient's had a vaginal pack for just 3 hours after surgery and none of the patients had a clinically detectable hematoma in the suprapubic wound. It will be of great interest to see in the future if the authors would consider repeating this study but having one group being operated upon by a right surgeon while the other having a left handed dominant surgeon perform the surgery to see if there is a lateralization of hematoma formation. In addition, repeating the study while having the vaginal pack placed overnight would also be of great interest. The continence rates at 2-3 years postoperatively may shed further light on earlier surgeon's notations on the need for retropubic fibrosis for long-term success; will those patients with a large hematoma and potentially greater scarification retropubically be drier than those which did not.

#### Reference

1. Lee RA, Symmonds RE, Goldstein RA: Surgical complication and results of modified Marshall-Marchetti-Krantz procedure for urinary incontinence. *Obstet & Gynecol.* 1979; 53:447-450.

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#### **High Incidence of Vaginal Mesh Extrusion Using the Intravaginal Slingplasty Sling**

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**Purpose:** The intravaginal slingplasty (IVS) is a tension-free vaginal tape variant that uses a multi-filament polypropylene tape to support the mid urethra for the treatment of female stress urinary incontinence. Numerous cases of defective vaginal wound healing have been described in the international urogynecological literature. We describe our experience of vaginal mesh extrusion using the IVS sling.

**Materials and Methods:** A total of 35 patients underwent suburethral sling procedures for anatomical stress urinary incontinence using the IVS system from November 2002 to September 2003. A retrospective chart

review was performed to retrieve data on safety and efficacy, complications and outcomes using this product. Results: Six patients (17%) to date have presented with defective vaginal healing manifested by extrusion of the sling material. Mean time to presenting symptoms was 9 months (range 2 to 15). All patients required surgical removal of the sling material. No urethral erosions were noted.

Conclusions: Our experience suggests that the IVS sling system, which uses a multi-filament polypropylene suburethral mesh, incurs an unacceptably high rate of defective vaginal wound healing and mesh extrusion.

### **Editorial Comment**

The authors reviewed a total of 35 patients who underwent a suburethral sling procedure using the intravaginal slingplasty (IVS) tension free vaginal tape. This is a multifilament polypropylene tape used for a mid-urethral sling technique. The authors noted a 17% sling extrusion rate with the mean time to presentation being approximately 9 months. All the patients required surgical removal of the sling material.

The causes of mesh erosion may be potentially multi-factorial: tension of sling, tissue vascularity, material composition and weave. Symptom presentation is variable and includes vaginal bleeding or discharge, pelvic pain as well as dyspareunia and malodor. Though some have discussed minimally invasive techniques of managing vaginal erosion (1) most authors advocate partial or complete excision of the surgical material. As the trend toward suburethral slings continues towards increasing degree of minimal invasiveness, surgeons must always remember that minimal invasiveness does not always mean minimal complications. Scientific research to help analyze the causes of erosion to help minimize this complication should continue as changing demographics combined with patient demand will lead to increased performance of minimally invasive anti-incontinence procedures using artificial material.

### **Reference**

1. Kobashi KC, Govier FE: Management of vaginal erosion of polypropylene mesh slings. *J Urol.* 2003; 169: 2242-3.

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## **PEDIATRIC UROLOGY**

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### **Phimosis: Stretching Methods With or Without Application of Topical Steroids?**

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Phimosis has been defined as unretractable foreskin without adhesences or a circular band of tight prepuce preventing full retraction. We suggested a new treatment protocol combining betamethasone with stretching exercises to reduce the number of patients requiring surgery for phimosis. Between January 2003 and September