

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

2004, 247 boys aged 4 to 14 years (mean 7.6) were included in this consecutive, prospective, open study. Patients were treated with 0.05% betamethasone cream applied to the distal aspect of the prepuce twice daily for the first 15 days, then once daily for 15 more days. Preputial gymnastics started 1 week after topical application of betamethasone. Ninety-six percent of patients receiving 1 or more cycles of betamethasone showed complete resolution of phimosis. There was a significant difference ( $P < .001$ ) in response rate between the study and control groups. Only 10 boys in the study group had no response to steroid and stretching. Treatment with topical steroids, combined with stretching exercises, is a suitable alternative to surgical correction (preputial plasty/circumcision).

### **Editorial Comment**

The authors studied the effect of betamethasone and stretching on a population of children referred for circumcision. They found that the treatment (up to 3 monthly cycles) worked in the great majority of patients. Indeed, only 10 of 247 patients ultimately underwent a surgical procedure for the phimosis. Success rate for the first month of treatment was 77% and for the 2nd and 3rd it was 57% and 60% respectively.

These results are impressive and remind us that for families that chose not to have their son's circumcised as newborns, there is an effective non-surgical treatment available. On the other hand, the authors leave several questions unanswered. There was a control group that just did stretching and did not apply the betamethasone. Unfortunately, the authors give very little data on this group. However, 76% of these got better! Would the addition of any type of cream augment that success rate?

Most important, the authors provide no data on whether these patients required any treatment whatsoever. Most everyone recognizes that resolution of phimosis occurs spontaneously in most cases. Only in situations of balanitis or posthitis is treatment really necessary. Hence, without that information, it is hard for the reader to know the value of the therapy. Indeed, it is the patients with inflammation/scarring or a history of pain and infection that might make the stretching difficult. It would be important to know the success rate of treatment in this group in particular. One might guess it would be lower. Nonetheless, the authors do present enough compelling data that a trial of non-operative treatment seems worthwhile in most cases.

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### **Intermittent Hydronephrosis Secondary to Ureteropelvic Junction Obstruction: Clinical and Imaging Features**

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Pediatrics. 2006; 117: 139-46

**Objective:** We sought to assess the clinical and imaging findings in intermittent hydronephrosis secondary to ureteropelvic junction obstruction, with particular emphasis on the characteristic ultrasonographic findings.  
**Methods:** This prospective, longitudinal, observational study included all children who had intermittent ureteropelvic junction obstruction and presented with abdominal pain over 6 years. Renal ultrasound was used as an initial screening tool to detect intermittent hydronephrosis. Renal ultrasonography was repeated every 1

to 2 days to record serial changes from the symptomatic to the asymptomatic stage. Their clinical manifestations and imaging findings were studied.

Results: Eighteen patients (14 boys, 4 girls) were studied. Most had sharp pain that began acutely and typically lasted for < 2 days. Most of the children (16 of 18) had nausea and vomiting that accompanied the pain. The acute episode generally resolved spontaneously and was followed by a pain-free interval that ranged from days to months. Factors that predisposed to an attack included increased water intake, vigorous exercise, or bladder distention. All patients had clearly demonstrable obstruction of the renal pelvis during an acute attack, a finding that diminished or resolved during the symptom-free intervals. During convalescence, all patients had renal pelvic wall thickening on ultrasonography. This finding appeared on the second or third day after a painful episode subsided, persisted for 6 to 9 days, and then disappeared in the symptom-free stage. Pyeloplasty was performed in 17 patients, none of whom had recurrent pain on follow-up. Extrinsic obstructions were found in 9 patients.

Conclusions: The keys to diagnosis are awareness of the syndrome, a detailed history, and immediate and serial imaging studies during painful crises. A thickened renal pelvic wall during convalescence is an important ultrasonic sign of intermittent hydronephrosis.

### **Editorial Comment**

The authors review their experience with intermittent hydronephrosis. This problem typically presents with severe acute, but episodic, flank pain, often associated with nausea/vomiting. The condition is rare (18 patients over 6 years), but making the diagnosis is very rewarding to the patients and their families. Surgery was needed in all cases, but none of the patients had episodic pain after repair.

The authors point out the difficulty with diagnosis and suggest frequent renal sonography, with the emphasis being on emergency ultrasound during an episode of pain, that is then compared to an ultrasound done when the patient is asymptomatic. This has been the most diagnostic test in our hands also. Diuretic renography and other provocative tests have been unreliable, whereas an ultrasound during an acute episode has been uniformly revealing.

The authors also propose a new test; measurement of the thickness of the renal pelvic wall during the convalescence after an acute episode. The finding of increased renal pelvic wall thickness was seen in all the author's patients between 2 and 9 days after the acute episode and then disappeared. This new finding is most helpful, as in many instances, an ultrasound of the kidney during the acute crisis may not be feasible. Further substantiation of this finding is needed, but it should be looked for in all patients with symptoms compatible with an intermittent hydronephrosis.

The authors note that it is expected that an extrinsic lesion would be the cause of an intermittent hydronephrosis. Indeed, in their series they found this in 53% of cases. Two cases of ureteral polyps were also noted, but in the others, the actual explanation for the intermittent hydronephrosis seems to be an intrinsic abnormality at the UPJ. The pathophysiology in these cases is unclear, but the clinical scenario was convincing.

Overall, the authors bring to light an important clinical syndrome. In addition to the usual criteria, the study proposes a novel new finding that is very exciting.

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