

Results: Pathologic upstaging occurred in 42% of patients, and pathologic downstaging occurred in 22%. Forty percent of patients with non-muscle-invasive clinical stage had muscle-invasive pathologic stage. Thirty-six percent of patients with organ-confined clinical stage had non-organ-confined pathologic stage (\geq or = pT3N0 or pTanyN-positive). Patients with higher clinical stage were more likely to be upstaged to non-organ-confined disease ($p < 0.001$). Patients were stratified into three groups: pathologically upstaged, same clinical and pathologic stage, and pathologically downstaged. When adjusted for the effects of standard postoperative features, upstaged patients were at a significantly higher risk of disease recurrence and bladder cancer-specific death than patients who had the same pathologic and clinical stage, who in turn were at significantly higher risk than downstaged patients. This observation remained true within each clinical stage strata. Within each pathologic stage strata, clinical stage did not substratify into different risk groups.

Conclusions: Clinical to pathologic stage discrepancy is a relatively common finding after extirpative surgery for bladder cancer. Clinical outcomes after radical cystectomy are largely driven by pathologic stage. Better clinical staging is necessary to improve patient evaluation and management.

Editorial Comment

A large series of 778 patients with infiltrative bladder cancer undergoing radical cystectomy was retrospectively analysed and the impact of staging error calculated.

Most interestingly – and not debated much in this paper – is the fact that the percentage of correct peroperative staging declined (!) over the years with correct staging around 44% until 1994 and around 35% and lower from 1995 to 2003. What happened in these periods? Was there an institutional change or did surgeons not perform TURB as thoroughly as before?

Notably, downstaging moderately decreased from 26% to around 20% during these years whereas upstaging sharply increased (!) from around 28% to 43% and 49% in the later periods mentioned above.

The outcomes of pathologically staged cancer finally were in the expected range with rather good results showing roughly 80% bladder cancer specific survival in organ confined disease as compared to 37% in non organ-confined disease.

These data again seem to justify adjuvant chemotherapy in this high-risk group of patients.

Dr. Andreas Bohle

Professor of Urology

HELIOS Agnes Karll Hospital

Bad Schwartau, Germany

NEUROUROLOGY & FEMALE UROLOGY

Voiding Dysfunction Following Removal of Eroded Synthetic Mid Urethral Slings

Starkman JS, Wolter C, Gomelsky A, Scarpero HM, Dmochowski RR

Department of Urologic Surgery, Vanderbilt University Medical Center, Nashville, TN, USA

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Purpose: Voiding dysfunction following genitourinary erosion of synthetic mid urethral slings is not clearly reported. We investigated the incidence of voiding dysfunction in patients following sling excision due to vaginal, urethral or intravesical mesh erosion.

Materials and Methods: Retrospective review identified 19 patients with genitourinary erosion of polypropylene mesh slings. Comprehensive urological evaluation was performed in all patients, and perioperative and postoperative data were analyzed. Voiding dysfunction was defined as refractory storage symptoms, emptying symptoms and pelvic pain. All subsequent medical and surgical interventions were recorded.

Results: In 19 patients a total of 11 vaginal, 7 intravesical and 5 urethral erosions occurred. Mean patient age was 52 years (range 32 to 69) and average followup was 8.4 months (range 3 to 34). Average time from symptom onset to sling removal was 10.1 months (range 1.5 to 38). Of the 19 patients 14 (74%) presented with multiple symptoms. Symptoms varied, including refractory pain, recurrent infections and bladder storage/emptying dysfunction. Urodynamic studies were abnormal preoperatively and postoperatively in 9 of 13 (69%) and 4 of 6 patients (67%), respectively. Following surgery lower urinary tract symptoms resolved completely in only 4 of the 19 patients (21%). Stress incontinence recurred in 8 of the 19 patients (42%). Five patients underwent simultaneous pubovaginal sling, of whom none had recurrent stress urinary incontinence. Only 9 patients (47%) considered themselves dry with no pads following surgery. Four patients required further surgery for refractory voiding symptoms.

Conclusions: Voiding dysfunction is not an uncommon finding after sling excision in the setting of genitourinary erosion. It may cause additional patient morbidity.

Editorial Comment

The authors give a sobering report on their experience with voiding dysfunction after erosion of synthetic mid-urethral slings. Their study included vaginal, vesical, and urethral erosions. The patient population was relatively young (average age 52) with average follow-up after intervention being less than 1 year. This report of persistent voiding dysfunction following removal of the eroded material as well as the high rate of incontinence after reparative surgery can be deflating to a treating physician. The incidence of recurrent incontinence is somewhat higher than that reported for transobturator suburethral tape erosion and subsequent explantation (1). The authors point out that in their experience, preoperative urodynamics prior to the removal of the erosion may be of marked value. In addition, it is noted that the presentations of tape erosion may be quite variable necessitating a high index of suspicion and a careful evaluation for appropriate diagnosis. One may heed the authors' advice that aggressive mesh removal for vaginal extrusion is not needed in all situations and that surgical judgment should be exercised. They also do debate the need for synchronous placement of pubovaginal sling at the time of mesh removal to prevent recurrent stress urinary incontinence.

Reference

1. Domingo S, Alama P, Ruiz N, Perales A, Pellicer A: Diagnosis, management and prognosis of vaginal erosion after transobturator suburethral tape procedure using a nonwoven thermally bonded polypropylene mesh. *J Urol.* 2005; 173: 1627-30.

Dr. Steven P. Petrou

Associate Professor of Urology

Chief of Surgery, St. Luke's Hospital

Associate Dean, Mayo School of Graduate Medical Education

Jacksonville, Florida, USA

Objective and Subjective Cure Rates after Trans-obturator Tape (OBTAPE) Treatment of Female Urinary Incontinence

Deval B, Ferchaux J, Berry R, Gambino S, Ciofu C, Rafii A, Haab F

Service de Gynecologie, Hopital Beaujon, Assistance Publique - Hopitaux de Paris (AP-HP), Universite Paris VII, Clichy, France

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Objective: To evaluate the safety and efficacy of a thermally bonded nonwoven polypropylene mesh in a transobturator suburethral tape procedure (OBTAPE), Mentor-Porges, Le Plessis Robinson, France) for women with stress urinary incontinence.

Methods: Between January 2003 and January 2005, 129 consecutive women (mean age 57.2 years) underwent OBTAPE in two academic centers. All the patients had stress urinary incontinence preoperatively. Detrusor instability was ruled out by cystometry. The women were evaluated 1, 6 and 12 months postoperatively. The objective cure rate was evaluated by clinical examination and the subjective cure rate was assessed using the KHQ and BFLUTS questionnaire.

Results: Mean follow-up was 17.2 +/- 4.7 months (range 4 to 28 months). The objective and subjective cure rates were respectively 89.9% and 77.5%. Most of the patients received general anesthesia (85.3%). Urinary retention was observed in two women (1.5%), necessitating tape adjustment. Voiding difficulties were observed in 7 cases (5.4%) necessitating intermittent self-catheterization for 4.2 +/- 2.4 days (range 1 to 7 days). Seven patients developed vaginal erosion (one with vaginal extrusion, and two with an obturator abscess). Complete mesh removal was necessary in 6 patients, four of whom had recurrent stress urinary incontinence.

Conclusions: Our results suggest that the OBTAPE is an effective treatment for women with stress urinary incontinence. However, vaginal mesh erosion occurred in 6.2% of women, and this implies the need for careful follow-up.

Editorial Comment

The authors reviewed the effectiveness of the transobturator procedure using the OBTape® material. The authors found overall cure rates that were very competitive with other suburethral sling procedures but noted a relatively high erosion rate.

This publication evaluated a fairly young patient population (average age 57.1) and followed the patients for a minimum of six months. Objective cure of stress incontinence was judged on fairly strict criteria: both clinical and urodynamic examinations were utilized though it is unclear when the urodynamic examinations were performed postoperatively. In addition to the objective evaluation, the patients were asked to judge their surgical result on a subjective basis. Performance of the operation was very efficient with a mean operating time being a little less than 10 minutes. Objective cure rates were approximately 90% with subjective cure rates being somewhat less at 78%. Of interest is that two-thirds of the patients had resolution of their preoperative urge symptoms while one-third has persistence of same. This mirrors closely that reported for other surgical procedures (1). That this operation usually necessitates less vaginal dissection opposes the argument that the urge component may be lessened by incidental neural ablation occurring during the vaginal dissection (2). This high erosion rate using the OBTape® has been reported by other surgeons leading to the discontinuation of use of this material; in response, there has been a progression to new tapes such as Aris™ that is knitted and has a larger pore size of 550 x 170 microns. Other authors have stated that erosion may be material based and not really a technical problem (3). This paper does reinforce the ease and efficacy of this procedure.

References

1. McGuire EJ, Savastano JA: Stress incontinence and detrusor instability/urge incontinence. *Neurourol Urodyn.* 1985; 4: 313-316.
2. Fulford SCV, Flynn R, Barrington J, Appanna T, Stephenson TP: An assessment of the surgical outcome and urodynamic effects of the pubovaginal sling for stress incontinence and the associated urge syndrome. *J Urol.* 1999; 162: 135-137.
3. Domingo S, Alama P, Ruiz N, Perales A, Pellicer A: Diagnosis, management and prognosis of vaginal erosion after transobturator suburethral tape procedure using a nonwoven thermally bonded polypropylene mesh. *J Urol.* 2005; 173: 1627-30.

Dr. Steven P. Petrou

*Associate Professor of Urology
Chief of Surgery, St. Luke's Hospital
Associate Dean, Mayo School of Graduate Medical Education
Jacksonville, Florida, USA*

PEDIATRIC UROLOGY

Natural History of Patients With Multicystic Dysplastic Kidney-What Followup Is Needed?

Onal B, Kogan BA

Division of Urology, Albany Medical College, Albany, New York, USA

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Purpose: Most clinicians recommend followup with annual ultrasound for patients with multicystic dysplastic kidney. The aim of this study was to determine whether followup ultrasound provides any clinical benefit.

Materials and Methods: We retrospectively reviewed the charts of 73 patients who were diagnosed with multicystic dysplastic kidney between October 1991 and August 2005. Data were analyzed with respect to patient characteristics and followup information.

Results: We identified 61 patients (43 boys and 18 girls) with adequate followup. A total of 49 patients (80%) were diagnosed prenatally and 12 (20%) postnatally. Associated urological anomalies were noted in 16 patients (26%). Median followup was 2.6 years (range 6 months to 37.5 years). Ultrasound examinations showed complete involution in 25 patients (41%) and partial regression in 18 (30%). The size of the multicystic dysplastic kidney increased in 1 patient (1.6%) and was unchanged in 17 (28%) without any pathological manifestations. Median age at complete involution was 2.1 years (range 36 days to 13.7 years). Patients with contralateral compensatory hypertrophy had more rapid complete involution. Urinary tract infection developed in 6 patients, of whom 1 was ultimately found to have reflux and 1 had ureteropelvic junction obstruction.

Conclusions: In our patients with unilateral multicystic dysplastic kidney ultrasound provided little clinically important information. Our data and a review of the literature suggest that once the diagnosis is made, no urological followup is needed. The primary care provider should monitor patients with multicystic dysplastic kidney for hypertension, abdominal mass and urinary tract infection.

Editorial Comment

This is an interesting review of 73 patients between 1991 and 2005 diagnosed with multicystic kidney disease. Of these 61 patients, 43 boys and 18 girls, had follow up with ultrasound postnatally and VCUG or renal scan.