

## NEUROUROLOGY & FEMALE UROLOGY

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### **Postoperative urinary incontinence after total abdominal hysterectomy or supracervical hysterectomy: a metaanalysis**

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**Objective:** A metaanalysis of randomized trials was conducted to evaluate if the type of hysterectomy, total abdominal hysterectomy or supracervical hysterectomy, has an impact on the development of urinary incontinence.

**Study Design:** We searched MEDLINE, EMBASE, CINAHL, Biological Abstract, and the Cochrane Library up to February 2007; abstracts at major meetings and bibliographies of retrieved articles were scanned. A fixed effect model was used to calculate summary relative risk estimates and 95% confidence intervals (CIs).

**Results:** Analysis showed no statistical difference in the risk of developing stress or urge urinary incontinence in women who underwent supracervical hysterectomy compared with women who underwent total abdominal hysterectomy (relative risk, 1.3; 95% CI, 0.94-1.78; P = 0.16 and relative risk, 1.37; 95% CI, 0.77-2.46; P = 0.25).

**Conclusion:** There is no statistical evidence of a different risk for developing either stress or urge urinary incontinence after a supracervical hysterectomy or a total hysterectomy.

### **Editorial Comment**

The authors noted a current trend towards supracervical hysterectomy as opposed to a total hysterectomy in an effort to diminish surgical impact on underlying patient anatomic structures that involve continence. The authors performed a meta-analysis to gather their data: this spanned relevant articles between 1996 and 2007, ongoing clinical trials, and abstracts performed on the topic. They specifically reviewed comparison of total abdominal hysterectomy and supracervical hysterectomy with regards the development of stress or urinary urge incontinence.

The authors noted that there was no difference between supracervical hysterectomy and total hysterectomy with regards to voiding dysfunction (stress urinary incontinence, urinary urge incontinence or symptoms of overactive bladder). In fact, they noted that there was a non-significant trend towards increased risk for voiding dysfunction with a supracervical hysterectomy as opposed to total abdominal hysterectomy.

This study highlights the difference between anecdotal and observational notations versus scientific analysis. Their findings of a non-statistical increase in supracervical approach associated voiding dysfunction as opposed to total abdominal hysterectomy may temper the enthusiasm for the completion of this operation sheerly based on the perception of preventing future voiding dysfunction. As pointed out by the authors, the difficulty in comparing the efficacy of observational studies versus scientific studies is that the former may be performed as an accumulation of experience over a career while the latter may involve a follow-up of significantly less time.

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### **Outcomes following sling surgery: importance of definition of success**

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**Purpose:** The assessment of incontinence therapies is complicated by the diverse outcomes instruments and definitions of success used by investigators. We defined this effect by using varied definitions of success to perform outcomes analysis following sling placement.

**Materials and Methods:** A retrospective review of patients undergoing SPARC (314) and autologous rectus pubovaginal sling (127) placement was performed, with 204 patients with the SPARC and 67 with pubovaginal sling completing questionnaire surveillance with the minimum 12-month follow-up. Outcomes were assessed using a questionnaire comprising validated incontinence questionnaires (Urogenital Distress Inventory and Incontinence Impact Questionnaire) and additional items addressing satisfaction. Success rates were compared using alternate definitions of success across all outcomes measures (eg dry rate, pad rate, percent improvement, degree of satisfaction).

**Results:** Wide variations in outcomes were seen depending on the definition used for success (SPARC success range 33% to 87%, pubovaginal sling 40% to 79%). Total absence of leakage was the strictest definition of success while continued use of 1 to 3 liners was associated with the highest success rates. In addition, 74% of patients with SPARC placement and 66% with the pubovaginal sling reported willingness to undergo sling surgery again despite the treatment failing to meet the criteria for success under multiple definitions. Finally, the individual sling type (SPARC vs. pubovaginal) associated with the superior success rate varied with the definition of success. However, these differences failed to achieve statistical significance.

**Conclusions:** Our data suggest that success rates following sling placement are significantly affected by the definition of success. Investigation to define standardized outcomes measures following incontinence surgery is of great importance to the urological community.

### **Editorial Comment**

The authors delve into the complicated world of gauging success after sling surgery. Their study pool for analysis was 271 patients of which 204 received the SPARC™ suburethral sling while 67 underwent a pubovaginal sling using autologous fascia. The authors found that if the strictest definition of success was utilized, that is, “dry is dry”, patients had a markedly lower success rate than when light pads was used as the definition of success. In addition, they noted that if the patient was improved by greater than 50% they were more prone to recommending the surgery or repeating the surgery as opposed to those not reaching 50%. These authors also compared the two techniques in a sliding scale of metrics of success noting the potential significant difference in the reported success rate. The two operations did have some disparity in that the SPARC™ operation had a higher pad free rate reported while the pubovaginal sling had more patients stating that they were dry.

One should strongly consider reading this excellent article in its entirety prior to judging the efficacy of reported sling operations. The authors make several excellent points in their discussion section including the call for completely dry to be used only in the strictest sense of the word. Of note is that the paper did not expand into postoperative complications including voiding dysfunction and its affect on sling success and outcomes.

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