

OUTCOMES OF TREATMENT OF STRESS URINARY INCONTINENCE ASSOCIATED WITH FEMALE URETHRAL DIVERTICULA: A SELECTIVE APPROACH.

Hypothesis / aims of study

Female urethral diverticula (UD) present with a variety of symptoms including stress urinary incontinence (SUI). Surgical repair of SUI may be done concomitantly with urethral diverticulectomy. Some surgeons may be reluctant to repair SUI concomitantly due to additional time and potential morbidity of anti-incontinence surgery. We assessed surgical outcomes of concomitant treatment of SUI at time of transvaginal urethral diverticulectomy (TVUD) based on a selective approach.

Study design, materials and methods

Following Institutional Review Board (IRB) approval, we identified patients with a UD and SUI who underwent TVUD between July 2004 and January 2016. SUI was documented before and after surgery using subjective and objective parameters. Autologous pubovaginal slings (APVS) were used selectively based on surgeon and patient preference.

Results

61 patients underwent surgical treatment of UD of which 39 presented with UD and concomitant SUI. Mean age was 53 years. Mean follow-up was 16.2 months. There were 24 patients (62%) with SUI that underwent concomitant APVS. Ninety-six percent of women who underwent concomitant SUI and TVUD reported pre-operative bothersome SUI compared to 43% of those who underwent TVUD alone ($p < 0.00006$) with an average reported pad per day use of 3.18 vs 0.59, respectively.

There was resolution of SUI in 20 of 24 patients (83%) who underwent a simultaneous APVS compared to 8 of 15 patients (53%) who underwent TVUD without APVS. Of the nine patients who had persistent SUI after TVUD without APVS, one underwent subsequent APVS placement at time of repeat TVUD for recurrent UD [Figure 1]. There was no difference in size, location of diverticulum or type of diverticulum in those who had persistence of SUI and those who did not.

Surgery resulted in the improvement or resolution of the majority of preoperative symptoms including recurrent urinary tract infection (UTI) (82% vs. 15%), dyspareunia (64% vs. 8%), and urgency (56% vs. 13%) (preoperative vs. postoperative).

Of the 22 patients without SUI at baseline, 1 had de novo SUI. This patient had a history of prior diverticulectomy. She had demonstrable SUI on VUDS and was also found to have another recurrence of urethral diverticulum. As such she underwent repeat TVUD with concomitant APVS with subsequent resolution of SUI.

Complications included two patients (8%) with prolonged urinary retention following APVS requiring sling incision, and short term post-op urinary retention in two patients (5%), one with TVUD alone and one patient with a recurrent UD 18 months post-operatively requiring repeat TVUD. De novo urgency was experienced in three patients (5%) who underwent concomitant APVS and four patients (11%) who underwent TVUD alone. There was no de novo dyspareunia noted in either group. There was one urethral stricture observed that resolved with a single dilation after UD without APVS. There were no urethrovaginal fistulas observed. There was no difference in estimated blood loss between those who underwent concomitant APVS and those who underwent TVUD alone ($p = 0.10$).

Interpretation of results

We selected patients for concomitant SUI surgery and TVUD based on the presence and bothersomeness of the UI symptoms and offered concomitant surgery for those with substantial bother. A substantial number of patients with UD will have concomitant SUI. However, not all patients with SUI and UD warrant or desire surgical repair. There exists potential morbidity as well as increase in operative time when considering concomitant anti-incontinence surgery. Similarly to those in the general population with SUI without complicating factors such as UD, some patients desire treatment and others do not likely based on degree of bother of SUI. A selective approach to concomitant SUI surgery at the time of UD allows the patient and surgeon to minimize morbidity in those who don't require such surgery. Furthermore, those without SUI at baseline are unlikely to develop de novo SUI.

Concluding message

Our experience supports the prior literature that concomitant APVS is safe and effective in women with coexisting UD and SUI with a selective approach. As such, the decision whether or not to perform concomitant APVS at time of TVUD should be made on an individual basis, selectively based on appropriate counselling of the risk of persistent bothersome SUI after TVUD vs. the added operative time and risk of SUI surgery.

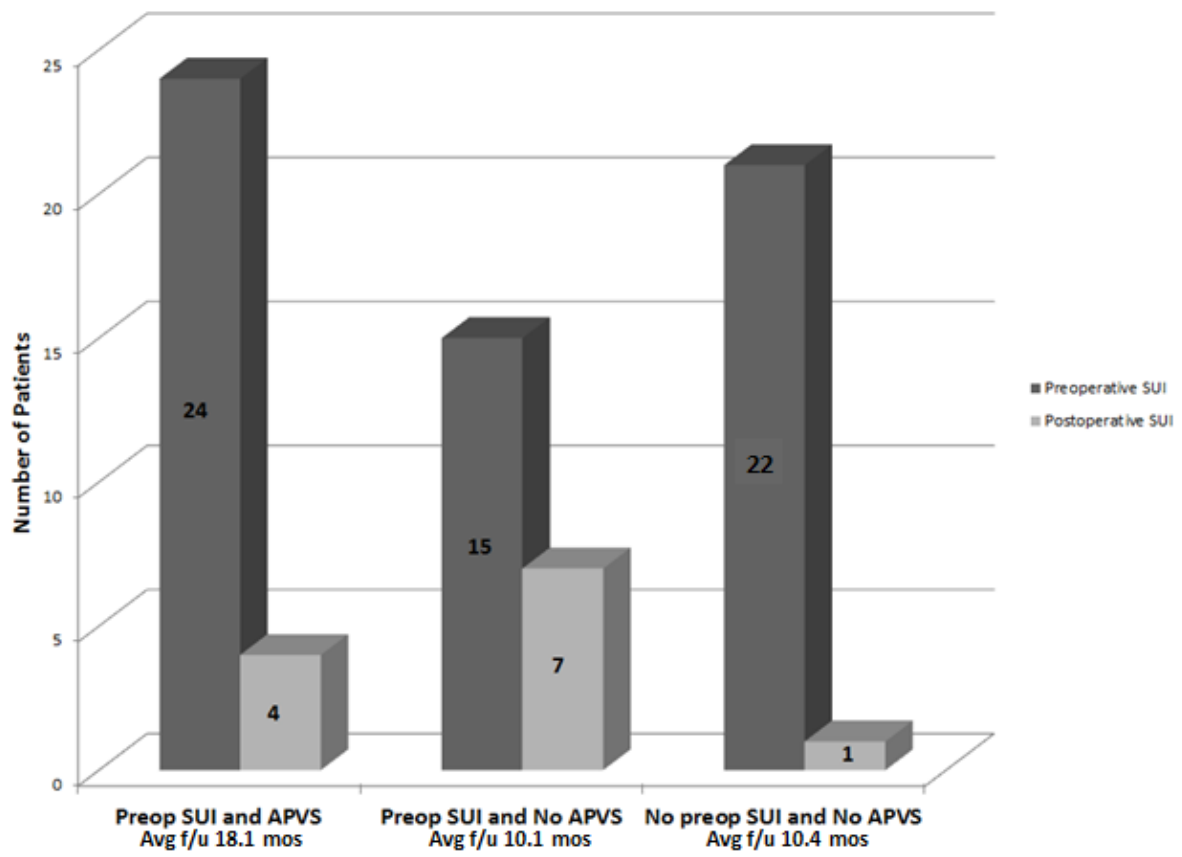


Figure 1: Incidence of SUI following transvaginal urethral diverticulectomy.

Disclosures

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