

Restoring Female Continence After Ventral Urethral Plate Loss: A Modified Minimally Invasive Approach

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Hypothesis / aims of study

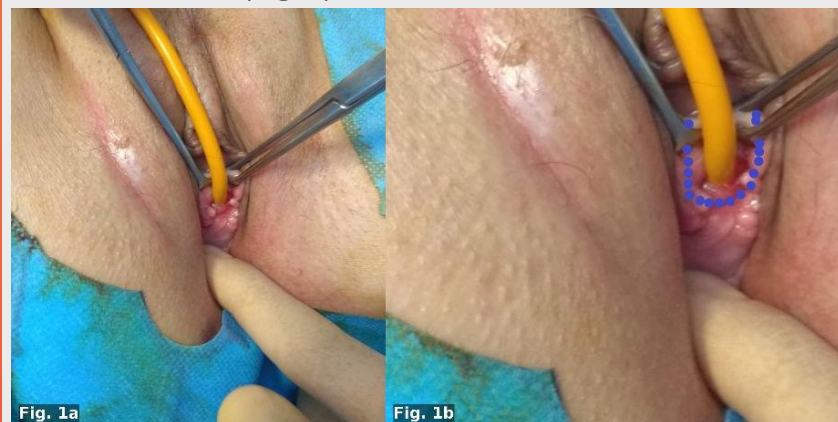
Female Urethral tissue loss usually result from traumatic or iatrogenic injuries. Surgical treatment options include primary closure, vaginal wall or bladder flap urethroplasty, and buccal mucosal grafting.

Vaginal flaps with well-vascularized grafts have demonstrated high success rates [1]. The use of synthetic materials should be avoided in complex urethral reconstruction [2]. When postoperative stress incontinence persists, options such as autologous slings [2], biological grafts (Pelvicol®) [3], or a Burch colposuspension may be considered.

We describe a modified minimally invasive reconstructive surgical technique for the management of stress urinary incontinence in a 68-year-old woman presenting with complete loss of the ventral urethral plate, secondary to iatrogenic injury after explantation of an extruded TVT sling.

Study design, materials and methods

Ventral urethral reconstruction was performed through a U-shaped incision along the labia minora surrounding the urethral defect (Fig. 1).



A well-vascularized vaginal flap was mobilized and advanced to the midline over a urethral catheter, thereby restoring the urethral plate (Fig. 2). The vaginal mucosa was closed in the midline without tension, re-establishing normal anatomy (Fig. 3a and 3b).



Results

A satisfactory urethral caliber and length were obtained (Fig. 4). Urinary continence was achieved and maintained, with no need for additional procedures during more than five years of follow-up.

Interpretation of results

In selected patients, urethral reconstruction alone may restore continence without additional surgery.

Concluding message

When feasible, urethral reconstruction using adjacent vaginal flaps represents an effective and durable option. Delaying any further intervention for persistent incontinence allows for optimal evaluation of the primary outcome. Future studies are required to evaluate long-term results and evolving reconstructive techniques.

References

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