

Simple sling incision for the treatment of iatrogenic bladder outlet obstruction

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Abstract

Introduction and hypothesis Bladder outlet obstruction (BOO) is reported to occur in 15 % of women after anti-incontinence surgery. In the past, iatrogenic BOO from slings was treated with urethrolysis. However, urethrolysis is not without morbidity, including significant bleeding, urethral injury, and recurrent stress urinary incontinence (SUI). Several studies have shown simple sling incision to be as effective as urethrolysis with less morbidity and lower rates of recurrent SUI. [1–3]

Methods We demonstrate the technique of transvaginal simple sling incision in two patients, one with a synthetic midurethral sling, and one with a biologic bladder-neck sling.

Results Simple sling incision is an effective and less morbid treatment than urethrolysis for iatrogenic urethral obstruction; 70–90 % of women will have significant improvement in obstructive voiding symptoms. Recurrent SUI is seen in approximately 20 % of women after sling incision.

Conclusions This video shows that simple sling incision is an effective, simple, and safe treatment for women with iatrogenic BOO after sling surgery and should be used as a first-line treatment.

Keywords Sling incision · Bladder-neck obstruction · Urethrolysis

Introduction

The aim of this video is to highlight the technique of simple sling incision for iatrogenic bladder outlet obstruction (BOO) in both pubovaginal and midurethral slings.

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Methods

BOO is reported to occur in 2–15 % of women after anti-incontinence surgery. In the past, iatrogenic BOO from slings was treated with urethrolysis. However, urethrolysis is not without morbidity, including significant bleeding, urethral injury, and recurrent stress urinary incontinence (SUI). Several studies have shown simple sling incision to be as effective as urethrolysis with less morbidity and lower rates of recurrent SUI. We demonstrate the technique of transvaginal simple sling incision in two patients, one with a synthetic midurethral sling, and one with a biologic bladder-neck sling. The following steps and surgical principles should be followed to perform a simple transvaginal sling incision.

1. Under deep sedation or general anesthesia, the patient is placed in the dorsal lithotomy position with steep Trendelenburg. All pressure points are padded. The vagina is prepped and draped in standard surgical fashion.
2. A Foley catheter is placed to drain the bladder.
3. The anterior vaginal wall is infiltrated with a mixture of lidocaine and epinephrine 1:200,000 U.
4. For synthetic midurethral slings, a 2-cm longitudinal incision is made in the anterior vaginal wall beginning 1.5 cm from the urethral meatus. In a biologic bladder-neck sling, the incision is made more proximal, overlying the bladder neck.
5. In both cases, the sling is identified using careful sharp and blunt dissection. For synthetic slings, the mesh can often be palpated before it is visualized. For biologic bladder-neck slings, there is often hypersuspension near the bladder neck. Placing a sound in the urethra; withdrawing it with gentle downward pressure may allow one to feel a “step-off” at the site of the sling. A right-angle clamp is then used to create a plane between the sling and urethra and gently spread. The sling is then incised. It is critical that the sling is identified and incised. Occasionally, scar tissue is confused with sling material and an intact sling is left behind
6. The vaginal wall is then closed with 2–0 Vicryl suture.

Conclusion

Simple sling incision is an effective, simple, and safe treatment for women with iatrogenic BOO after sling placement and should be used as a first-line treatment.

Conflicts of interest None

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