

SUCCESSFUL RESTORATION OF INCONTINENCE IN MALE URINARY INCONTINENCE AFTER FAILED SLING SURGERY: AN IN-VIVO SOLUTION WITHOUT REMOVING THE SLING MATERIAL

Hypothesis / aims of study

Postprostatectomy incontinence (PPI) is one of the most devastating urinary problems for male patients. Different alternatives have been described to provide solution for PPI however, few have proved to be effective and found to be long-term effective. Urethral compression by a silicone-pad has been described in the last decade and with silicone-columns on each side this device (ARGUS™) enables adjustment and proper fixation to achieve the continence. We have been using this device for the last 5 years and in the present study, we aimed to evaluate an uncommon cause of failure for this treatment modality and define an in vivo solution without removing the device or addressing a second procedure or implantation.

Study design, materials and methods

A total of 16 men underwent male sling using ARGUS™ were recruited. Incontinence etiology, severity were assessed in all patients and patients were evaluated by physical examination, urinalysis, urine culture, uroflowmetry, post-void residual urine measurement, stress test after full bladder, urodynamics and cystourethroscopy, if necessary. Patients with uninhibited detrusor contractions, neurogenic lower urinary tract dysfunctions, severe cognitive impairment, significant comorbidities were excluded from the study. Men with detrusor overactivity, urethral or bladder neck strictures were first treated for the primary pathology and then received ARGUS™ as described previously. A plain x-ray of pelvis was obtained in all patients and all patients were controlled with regular follow-up visits and men with failed to become fully continent were scheduled to re-adjust the tension of the sling. In two patients who failed after surgery, silicone arms were found to be detached from the original pad on one site. The pad was sutured to a mesh and then on each side prolene sutures were tagged to the mesh and silicone pad. After this modification the needles passed to the suprapubic area and tied without tension to restore the continence again.

Results

A total of 16 patients were evaluated after surgery. Of the patients, 11 received ARGUS™ through transobturator route whereas 5 had retropubic sling. All patients were continent immediately after the surgery but 4 were unable to void and needed a readjustment for lowering the tension. 4 patients in the TOT group and 1 in the retropubic group started to leak within 1-3 weeks. Using the washers the sling tension was readjusted and continence was achieved again. Overall, all patients used 0 to no pads after 1 year of surgery. 8 of the patients had inguinal pain after the surgery which subsided within 2 to 4 weeks after analgesic administration. In two patients who started leak after surgery we obtained a second x-ray and silicone ends attached to the pad were found to be detached on one side and compression of urethra was lost (Figure 1a). On exploration, detached part of the silicone arm was found (Figure 1b). Silicone pad was removed and the same pad was used again. A mesh was sutured to the pad and 1-0 prolene suture was tied to each end of the pad secured to a mesh (Figure 1c). The prolene sutures were passed to the suprapubic area and tension was achieved by tying both ends to each other over the rectus fascia (Figure 1d) and silicone pad was placed on anterior surface of urethra again (Figure 1e). Patients were both continent after 3 months of surgery.

Interpretation of results

Our results showed that adjustable male sling is a highly effective and minimally invasive alternative in treatment of male stress urinary incontinence. The compression mechanism is adjustable thus it enables surgeon to tighten or loosen after the implantation. In the present study, we defined a similar success rate with adjustable male sling system ARGUS™ as described previously. Moreover, we described a new and unique solution to a mechanical problem that could be faced after implantation and restoration of the continence was achieved again.

Concluding message

To our knowledge, this is the first study defining a new technique and in vivo solution to a failed sling surgery. This method brings less morbidity and low cost in patients who demands restoration of continence.

Figure 1. a-e

a

b

c

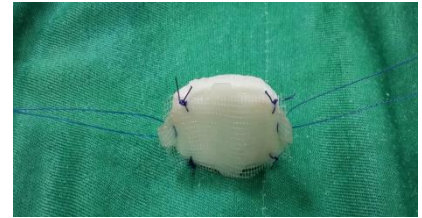


Figure 1. (a) X-ray showing detached arm on right side of silicone pad. (b) broken arm on one side. (c) Mesh was sutured to the pad and 1-0 prolene suture was tied on each side (d) Passing of prolene sutures to suprapubic area (e) final position of sling.

References

1. Romano SV. The ARGUS sling, an adjustable system for male stress incontinence. In: Post Prostatectomy Incontinence- A clinical guide. ed. Singla A. Lambert Academic Publishing, Saarbrücken, 2013. pp: 147-166

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** Informed written consent was obtained from all patients. Since this is a retrospective evaluation of the results of sling surgery we did not obtain ethics approval. We just present our surgery results retrospectively. **Helsinki:** Yes **Informed Consent:** Yes