

A LESS INVASIVE APPROACH FOR FASCIAL SLING IN BOYS WITH NEUROGENIC INCONTINENCE

Synopsis of Video

This video shows a mini-invasive approach for the treatment of stress urinary incontinence in a boy with neurogenic bladder dysfunction (NBD).

Hypothesis / aims of study

The most children with NBD respond to anticholinergics and clean intermittent catheterization (CIC), but some patients require surgical manipulation of the bladder neck to achieve socially acceptable urinary continence. Options for increasing bladder outlet resistance include bulking agents, artificial urinary sphincter, bladder neck tubularization and sling procedures. The rectus fascial sling has been proven as effective and save even in male children, remaining concerns on potential complications, including bladder neck, urethral and rectal injury. The dissection by blunt finger around the bladder neck would be difficult and the endopelvic fascia must be opened laterally and the fascial sling must be passed laterally to the prostate to avoid damaging of neurovascular bundles. This video shows a mini-invasive passage of the rectus fascia in a 6-year boy by means of the curved carrier devices, currently used to perform tension free vaginal tape (TVT).

Study design, materials and methods

Five male patients underwent puboprostatic sling suspension for intrinsic sphincter deficiency at median age of 15 ± 6.8 (range: 6-24 years), using autologous rectus fascia. In all cases mini-invasive curved carrier devices were employed to pass rectus fascia around the bladder neck. The 2 patients with normal bladder capacity for their age required no additional bladder surgery, while the remaining 3 patients underwent additional bladder procedures (detrusorectomy in 2 cases, and sigmoid-cystoplasty in the remaining one). All patients but one used CIC daily and all patients were evaluated with urodynamics at least 6 months after surgery.

The sling procedure, via an abdominal-perineal approach, consists of suspending the bladder neck by placing a simple U-shaped rectus abdominus fascial sling. The perineal approach is performed to prepare the passage of the sling alongside the prostate using curved carrier devices to enter into endopelvic fascia manually guided from the abdomen through the retropubic space. Moreover, the free end of the fascial flap is then passed around the bladder neck using carrier devices.

Results

Three patients immediately achieved urinary day- and night-time urinary continence after surgery and 2 patients achieved only night-time continence. These patients with persistent day-time incontinence required a subsequent injections of dextranomer/Hyaluronic acid (Deflux) at the suspension site and 2 of them became continent. The age-related bladder capacity improved in all patients with a good compliance and low end-filling pressures in all cases. There were no urethral erosion, infection or other major complications. Follow-up was 4.5 ± 2.7 years (range: 1.5-9 years).

Interpretation of results

This model of sling's procedure has good results at our initial experience.

Concluding message

The adoption of the classical urogynaecological instrument, currently used to perform TVT, may facilitate the fascial sling passage through the pelvic floor, thus potentially reducing complications.

References

1. BJU International, 83: 971-5, 1999
2. J. Urol, 166: 658-61, 2001

<u>Specify source of funding or grant</u>	None
<u>Is this a clinical trial?</u>	No
<u>What were the subjects in the study?</u>	HUMAN
<u>Was this study approved by an ethics committee?</u>	No
<u>This study did not require ethics committee approval because</u>	This technique is already standardized
<u>Was the Declaration of Helsinki followed?</u>	Yes
<u>Was informed consent obtained from the patients?</u>	Yes