

THE ADJUSTABLE SINGLE-INCISION SLING SYSTEM (AJUST™) AS A USEFUL TOOL FOR CORRECTING RECURRENT OR COMPLICATED STRESS URINARY INCONTINENCE IN AN ELDERLY POPULATION

Hypothesis / aims of study

The effective treatment of stress urinary incontinence can present a challenge in cases complicated by previous pelvic floor surgery, esp. failed incontinence procedures or urethral scarring (type III SUI). Suburethral tape insertion in a tension-free fashion has proven to be less effective than in type I/II SUI [1]. More extended procedures like fascial slings are associated with a higher complication rate, esp. in the elderly [2]. In this growing population there is a need for a procedure with minimal invasiveness, easy feasibility in preoperated patients, and high efficacy.

Study design, materials and methods

The AJUST™ (C.R. BARD, Inc.) minimally invasive sling has self-fixating polypropylene anchors that completely perforate and fixate through the obturator membrane with connectable introducers by a single suburethral incision. Adequate tensioning can be achieved by an adjustable mesh that is locked into place at the end of the short procedure.

Between 04/2009 and 02/2010 we treated 23 patients with a follow-up of 1-11 months (mean 6,3 months). Age ranged from 67 to 86 years (mean 75,5 years). All patients had prior pelvic floor surgery (mean 2,7 (1-8) operations). Relevant comorbidities were present in 18/23 (78,3%) of the patients. Hospital stay ranged from 2 to 4 days (mean 3,0 days), operation time from 16-49 minutes (mean 23,5 minutes). Patients were evaluated by Stamey degree of incontinence, clinical stress test, pad use, and overall satisfaction.

To control adequate tensioning of the tape an intraoperative stress test with 300cc saline filling of the bladder and a Valsalva manoeuvre was performed in every patient.

Results

The procedure was easily feasible in every patient despite considerable periurethral scarring in many patients. There were no complications like bleeding, bladder injury, tape infection, or urinary retention. The learning curve was short, only the optimal angle (60°) and the depth of the introducer insertion had to be tuned during the first 4-5 operations. The postoperative change in Stamey degree of incontinence is figured in table 1.

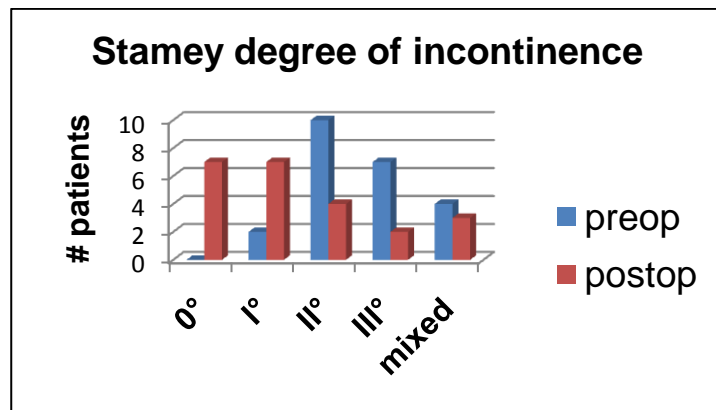


Table 1.

The average usage of pads per day decreased from 5,9 (1-10) to 2,7 (0-10), thus by 54,2%. 12/23 patients (52,2%) had a pad reduction of at least 50%. Overall satisfaction with the result was very good in 6/23 patients (26,1%), good in 6/23 (26,1%), fair in 3/23 (13,0%), and poor in 8/23 (34,8%). The average age of the 8 patients that were regarded as failure was slightly higher (78,3 years). 4/8 patients (50%) had neurological comorbidities (stroke, parkinson's disease). 5/23 had previous prolapse surgery within the last 6 months, 4/5 (80%) had a reduction of at least 1 Stamey degree and were satisfied, 1/5 (20%) was fairly satisfied due to de-novo-urge symptoms.

Interpretation of results

The application of an adequate degree of tension to the urethra is the key factor in restoring continence in this selected cohort of very difficult cases (type III SUI, recurrence, multiple previous operations). The design of the device warrants easy application and learning, a rather plain anchoring in the obturator membrane prevents obstruction. The adjustable mini sling seems to be suitable esp. for de-novo-stress urinary incontinence after previous prolapse surgery. The procedure can be regarded as safe for no complication was observed in an elderly population with multiple risk factors. The overall improvement rate of 2/3 of the patients (65,2%) in a 'salvage procedure' enables us to treat a group of patients that is otherwise supplied with diapers or indwelling catheters.

Concluding message

The AJUST™ mini sling is a truly minimal invasive procedure that offers a safe and effective tool to restore continence in recurrent and complicated cases of stress urinary incontinence, prior failed surgery cases and even in frail elderly patients.

References

1. Rezapour M et al. Tension-free vaginal tape (TVT) in stress incontinent women with intrinsic sphincter deficiency (ISD) – a long-term follow-up. Int Urogynecol J 2001;(Suppl 2):12–14
2. Trabuco EC et al. Medium-Term Comparison of Continence Rates after Rectus Fascia or Midurethral Sling Placement. Am J Obstet Gynecol. 2009;200(3):301-6

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<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No
<i>This study did not require ethics committee approval because</i>	non-randomized, retrospective observational study
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes