

DISLODGED SCREWS AFTER BONE-ANCHORED SUB-URETHRAL SLING PROCEDURE: A CONSIDERABLE CAUSE OF SLING FAILURE

Hypothesis / aims of study

One of the treatment options for post prostatectomy incontinence is the bone-anchored bulbourethral sling with a success rate ranging between 53% and 85% (1). In this procedure, a trapezoid segment of a synthetic sling is anchored into the pubic bones bilaterally using 3 pairs of screws each attached to a pair of No. 1 polypropylene sutures. Failure of absorbable slings using this technique was explained by the autolysis of the sling material (2). Though, there is no available convincing data to explain synthetic slings failure that was reported within a period of 6 months following the sling procedure.

The aim of this study was to direct the attention toward screws dislodgment to be an important cause of sling failure that should not be overlooked.

Study design, materials and methods

In this bi-center study and after IRB approval, we reviewed the charts of patients who had bone-anchored bulbourethral sling for male stress urinary incontinence (SUI) in two different centers. From the chart review we identified the patients who had dislodged bone anchors after the procedure. The data of those patients was collected including patients' age, cause & severity of incontinence, time of screws dislodgment after surgery, management & outcome of treatment after sling failure.

Results

Three (13%) out of 23 patients done in one center & 1 (6%) out of 17 patients done in the other had dislodged screws after a successful sling procedure. Patients' data are shown in the table:

Patient #	Age	Cause of SUI	Severity of incontinence (pads per day)	Time recurrence after surgery (months)	Management of sling failure	Outcome
1	71	Retropubic radical prostatectomy (RRP)	2-4	1	Re-adjustment of sling tension and replacement of dislodged screws	Improved
2	55	RRP	12	11	Sling removal and later replacement	Improved
3	71	RRP , urolume and pelvic X-ray	15	4	Sling removal and later replacement	Improved
4	59	RRP	10	9	Sling removal and later replacement	Did not improved (suprapubic tube drainage)

Interpretation of results

This study reflects a relatively high incidence of screw dislodgement after bone-anchored sling. Interestingly there was a tendency of screw dislodgement to occur earlier with the two older patients (71 years each) who had earlier screws dislodgement (1 & 4 months) after surgery compared with the younger two other patients (55 and 59 years) who had their screws dislodged 11 & 9 months respectively.

Concluding message

Dislodgement of screws after successful sling procedure is an important cause for sling failure. Follow up X-ray may be a viable option in patients who have bulbourethral bone-anchored sling who develop recurrent SUI. In specific types of patients (including older age groups), further studies may be required to investigate the hold power of the bones. In those patients, alternative options for treatment of SUI might be considered

References

- 1- J Urol (2005); 173:1657-1660.
- 2- J Urol (2005); 173:499-502.

Specify source of funding or grant	None
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Institutional review board at medical university of south carolina
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes