

IS THERE A PLACE FOR SINGLE INCISION SLINGS AS SALVAGE SURGERY?

Hypothesis / aims of study

Previous studies demonstrated that a repeat mid urethral sling (MUS) could be offered as salvage surgery (SS) to patients with persistent or recurrent stress urinary incontinence (SUI) after primary sling, with a subjective improvement and cure rate of 74% and 63% respectively. However the management of these patients is still challenging and there is no evidence on the role of single incision slings (SISs) as SS.

The aim of our study was to assess the feasibility of SISs as SS after primary sling failure and to identify independent predictors of post-operative outcomes in women previously treated with MUS with recurrent or persistent SUI.

Study design, materials and methods

The study included 43 patients with a previous history of MUS who were treated with SIS at a single tertiary referral center. All patients had complete pre operative, intraoperative and post-operative data including age, presence of Mixed Urinary Incontinence (MUI), number of pad used before and after SS and time to SS (defined as the time between MUS and SIS and dichotomized according to the most informative cut off).

Postoperative outcomes were: surgical failure (SF) (defined as the need of additional surgery for persistent or recurrent incontinence), subjective cure (SC), subjective improvement (SI) and no pad use over 24 hours (zero pad). SC was defined as a negative response to the question "do you still experience any urinary leakage during activities?", while SI was considered in those women who responded yes to the question "are you satisfied with the results?". Univariate and multivariate Cox regression models were used to test the relationship between preoperative predictors and the aforementioned outcomes after surgery

Results

Mean follow up was 53 months (range 18-71), mean age was 61 years (range 33-79). Of 43 patients, 14 (33%) had a history of MUI, while 29 (67%) had pure SUI. Mean time to SS was 47 months (range 2-266). The difference between mean number of pads used before and after SS was statistically significant (5 vs 0.25; $p < 0.01$).

The rates of zero pad, SI, and SC after SS were 72%, 62% and 63% respectively. However, 14 patients had SF after SS with SIS and needed further treatments: 1 (7%) artificial urinary sphincter, 4 (29%) sacral neuromodulators, and 9 (64%) additional slings. In these patients, the overall zero pad, SI and SC rates significantly improved after the last treatment ($p < 0.01$), and were 93%, 70% and 83% respectively.

After stratification of patients according to the most informative cut off, the risk of SF after SIS resulted to be significantly higher in patients with time to SS shorter than 9 months ($p = 0.021$). At multivariate Cox regression analysis, after adjusting for possible confounders (age, MUI), time to SS emerged as the only independent predictor of SF after SIS ($p = 0.008$). Age and presence of MUI resulted to be the only statistically significant predictors of zero pad and SC at multivariable analysis (all $p < 0.05$) while none of the aforementioned variables had a statistically significant impact on SI

Interpretation of results

When considered as salvage treatment, SIS is characterised by a relatively high rate (33%) of postoperative relapse.

Concluding message

When patients who experience SF after SIS receive further salvage treatments, in high volume centers, satisfactory outcomes might be obtained. After correcting for age and nature of incontinence, time from primary failure to salvage surgery resulted the only independent predictor of SIS failure. Further studies are needed to better characterize failure patterns of primary MUS in order to identify ideal candidates for salvage SIS.

Disclosures

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