

## COMPARISON OF OUTCOMES OF MINIARC AND MONARC SLINGS: UPDATE OF A SINGLE-CENTER SURGICAL SERIES

### Hypothesis / aims of study

Previous studies demonstrated that Single incision MiniArc slings are a safe procedure associated with high success and low complications rates. Furthermore comparative studies, suggest that MiniArc and Monarc slings are equally effective in the treatment of stress urinary incontinence (SUI). A pilot study conducted by our group also confirmed similar results between MiniArc and Monarc slings. However, a larger population with a longer follow-up is needed to validate such results.

In this context we aimed at assessing the rate of post-operative favourable outcomes and the rate of complications of MiniArc compared to Monarc slings in a large cohort of patients with a long follow up at a single tertiary referral center.

### Study design, materials and methods

Overall, 381 patients treated with primary sling for SUI between 2003 and 2012 at a single tertiary referral center were identified. Of them 166 (44%) underwent a MiniArc sling procedure, and 215 (56%) a Monarc sling procedure. All surgeons were staff members with adequate experience in sling surgery. The choice of sling was left at the discretion of the implanting surgeon.

All patients had complete pre-operative data including age, history of diabetes mellitus (DM), BMI, presence of Mixed Urinary Incontinence (MUI). Postoperative outcomes were defined as: persistent or recurrent stress incontinence rate (PoRSUI), surgical failure (SF) (i.e. need of second surgery for PoRSUI), subjective cure (SC), subjective improvement (SI), and no pads usage over 24 hours (zero pad) rates. SC was defined as a negative response to the question "do you still experience any urinary leakage during activities?" while SI was considered in women who responded yes to the question "are you satisfied with the results?". Finally we assessed post operative pain and erosion rates in the two groups. Chi-squared test and Wilcoxon rank sum were used to compare the aforementioned outcomes between groups

### Results

Mean follow up was 66 months (range 12-138). After stratification according to the type of sling, the two groups resulted homogeneous in terms of age, DM, BMI and MUI.

The rate of PoRSUI in MiniArc and Monarc patients was 6% and 13% respectively ( $p=0.02$ ). Surgical failure rate was 9% ( $n=15$ ) in MiniArc patients and 13% ( $n=28$ ) in Monarc patients ( $p=0.22$ ). SC, SI and no pads usage were 87%, 86%, 90% and 89%, 88%, 91% in MiniArc and Monarc patients respectively (all  $p>0.05$ ), while post-operative pain and erosion rate were significantly higher in Monarc patients (14% vs 7% and 6% vs 0.6% respectively, all  $p<0.01$ ).

### Interpretation of results

This study confirms the similar performance of both slings in terms of post-operative outcomes, with difference in erosion and pain rates, in a large cohort of patients with a longer follow up.

### Concluding message

Our results highlight, once again, the optimal outcomes of MiniArc not only in the short term but also with a mid-term follow-up.

### Disclosures

**Funding:** NONE **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** Retrospective **Helsinki:** Yes **Informed Consent:** Yes