

DOES INTRA-OPERATIVE RETROGRADE LEAK POINT PRESSURE PREDICT SUCCESS OF ARGUS MALE PERINEAL SLING?

Hypothesis / aims of study

The Argus male perineal sling is an attractive surgical alternative to the artificial urinary sphincter to treat post radical prostatectomy stress urinary incontinence. It is adjustable, less invasive and does not require manipulation before voiding like the AUS. It is recommended to achieve an intra-operative retrograde leak point pressure (RLPP) between 35 and 40 cm of H₂O after tensioning the sling to obtain successful outcomes. The goal of our study was to determine if intra-operative RLPP could predict post-operative success.

Study design, materials and methods

This is a retrospective review of 19 consecutive patients who underwent implantation of Argus male perineal sling between the years 2013 and 2015 in a tertiary care center. The procedure was performed by two urologists. Demographic information, pre-operative parameters such as urodynamic studies, 24-hour pad test and cystoscopic findings and satisfaction questionnaires (OABSS, ICIQ and IIQ-7 scores) were extracted from patients' medical records, as well as intra-operative RLPP and post-operative parameters such as satisfaction questionnaires and complications.

Results

The subjective cure rate as reported by the patient was 90% after surgery. The mean RLPP was 37.93 (± 3.45) cm of H₂O. The mean pre-operative valsalva leak point pressure (VLPP) was 84.06 (± 67.45) cm of H₂O. Regression analysis revealed a statistically significant inverse correlation between pre-operative VLPP and RLPP ($p = 0.0411$, $r = -0.5954$). The pre-operative 24-hour pad test positively correlated to post-tensioning RLPP, but the correlation is not statistically significant ($p = 0.2168$, $r = 0.3522$). The pre-operative 24-hour pad test and the RLPP both positively correlated with post-operative questionnaires, but were not statistically significant.

Interpretation of results

An intra-operative RLPP of 37.93 cm of H₂O achieved positive outcomes for Argus male sling with a 10% failure rate. An increased severity of the stress urinary incontinence based on a lower pre-operative VLPP required a higher RLPP to achieve continence. Lastly, pre-operative 24-hour pad test and RLPP failed to significantly predict the success rate of Argus male sling based on questionnaires.

Concluding message

We consider the Argus sling a promising surgical modality for various degrees of male stress urinary incontinence. This study demonstrates that the intra-operative measure of RLPP post-tensioning is required for this adjustable sling to obtain optimal continence and for subsequent evaluation.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Jewish General Hospital - Research Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes