ABSTRACT:

Introduction: A 'mini male sling' (MMS) is a urethral sling designed for stress urinary incontinence at the time of ejaculation. The MMS is composed of either human cadaveric pericardium or macroporous monofilament mesh and is sutured to the ventral bilateral corpora cavernosa proximal to the corporotomies for inflatable penile prosthesis (IPP) placement at the level of the bulbar urethra. For men who experience erectile dysfunction and clairicturia, we hypothesized that placement of an IPP and a MMS would result in significant improvement in patient-reported clairicturia and mild stress urinary incontinence as measured by pad use.

Method: A retrospective review was performed for all consecutive patients (n=14) who underwent IPP and MMS placement by a single surgeon between 2016-2017. Patient-reported clairicturia and number of pads used daily for mild stress urinary incontinence were assessed pre-operatively and at each post-operative visit starting at 2 post-operative weeks for mild stress urinary incontinence and starting at 3 post-operative months for clairicturia. Pre-operative to post-operative patient reported clairicturia and pad use were compared for each patient using McNemar’s test with a statistical significance threshold of p<0.05.

Result: Seventeen men underwent both IPP and MMS placement (1 concomitant IPP/MMS, 3 sequential IPP/MMS). Mean patient age was 71 (SD 7.29) years, mean patient BMI was 26.23 (SD 3.27), mean IPP cylinder size was 19.8 (SD 2.2) cm, and mean MMS surface area was 14.6 (SD 1.78) cm². Ten of the MMS were composed of macroporous monofilament polypropylene mesh and four were composed of human cadaveric pericardium. Mean post-operative follow-up was 2.29 (SD 1.90) months. Of the 14 patients in the study, 11 had MMS placed at the time of IPP placement and three had subsequent MMS placement after previously undergoing an IPP placement. Mean IPP cylinder size was 19.8 (SD 2.2) cm, and mean MMS surface area was 14.0 (SD 1.78) cm². Ten of the MMS were composed of macroporous monofilament polypropylene mesh and four were composed of human cadaveric pericardium.

The objective of this study is to evaluate if placement of an IPP and a MMS in men who experience erectile dysfunction and clairicturia would result in significant improvement in patient-reported clairicturia and mild stress urinary incontinence as measured by pad use.

METHODS:

A retrospective review was performed for all consecutive patients (n=14) who underwent IPP and MMS placement by a single surgeon between 2016-2017. Patient-reported clairicturia and number of pads used daily for mild stress urinary incontinence were assessed pre-operatively, and at each post-operative visit starting at 2 post-operative weeks for mild stress urinary incontinence and starting at 3 post-operative months for clairicturia. Pre-operative to post-operative patient-reported clairicturia and pad use were compared for each patient using McNemar’s test with a statistical significance threshold of p<0.05.

RESULTS:

Fourteen men met inclusion criteria having undergone both IPP and MMS placement. Mean patient age was 71 (SD 7.29, range 56-78) years. Mean patient BMI was 26.23 (SD 3.27). All men had previously undergone a robotic assisted radical prostatectomy. None of the patients were diabetic. Ten (71%) patients had a history of hypertension.

Of the 14 patients in the study, 11 had MMS placed at the time of their IPP placement and three had subsequent MMS placement after previously undergoing an IPP placement. Mean IPP cylinder size was 19.8 (SD 2.2) cm, and mean MMS surface area was 14.0 (SD 1.78) cm². Ten of the MMS were composed of macroporous monofilament polypropylene mesh and four were composed of human cadaveric pericardium.

Mean post-operative follow-up was 2.29 (SD 1.90) months. Of the nine patients who reported using one pad per day pre-operatively for mild stress urinary incontinence, six reported use of zero pads per day by two post-operative weeks (McNemar significance probability=0.03). Of the seven patients who reached the 3 month post-operative visit, all reported resolution of their clairicturia (McNemar significance probability=0.62). There were no post-operative complications.

CONCLUSIONS:

For men who experienced erectile dysfunction as well as clairicturia and mild stress urinary incontinence, placement of an IPP and a MMS significantly improved mild stress urinary incontinence as measured by pad use by 2 post-operative weeks and patient-reported clairicturia by 3 post-operative months.

REFERENCES: