

## ABDOMINAL MESH SACROCOLPOPEXY (MSC) AS A REPAIR FOR RECURRENT TRIPLE COMPARTMENT PELVIC ORGAN PROLAPSE

### Hypothesis / aims of study

Although recurrence of pelvic organ prolapse after primary surgical repair has been reported in up to 30% of cases [1], there are few publications on the surgical management of recurrent pelvic organ prolapse (POP). We report on a series of women who underwent abdominal mesh sacrocolpopexy (MSC) for recurrent vault, posterior, and anterior ("triple compartment") POP.

### Study design, materials and methods

After IRB approval, a retrospective database review of patients who underwent prolapse repair was undertaken. We identified all women who underwent MSC as a secondary repair for recurrent vault prolapse, alone or with concomitant anterior and posterior vaginal wall compartment POP. Inclusion criteria included MSC only for secondary repair of vault, posterior, and anterior POP with minimum 6 month radiographic follow-up. Preoperative evaluation included detailed history, physical examination (with grading of prolapse using the Baden-Walker classification system), Urogenital Distress Inventory (UDI-6), Incontinence Impact (IIQ), and visual analogue quality of life (QoL) questionnaires, standing voiding cystourethrogram (VCUG) with lateral, rest-strain views, and urodynamic studies (UDS) with and without prolapse reduction. All MSC procedures were performed by the same surgeon using Marlex mesh. Follow-up included physical examination at 6 weeks, 6 months, 1 year, and annually thereafter, and standing lateral VCUG at 6 months postoperatively to confirm anatomical correction of the cystocele. Recurrence of prolapse was defined as any clinical  $\geq$  grade 2 prolapse, or bladder base descent  $> 2$  cm ( $\geq$  grade 2) on lateral straining VCUG [2]. Data were collected on age, weight, race, uterine/ovarian status, sexual function, and prior pelvic surgery.

### Results

We identified 33 women who underwent MSC between 1999 and 2004, of whom 21 met inclusion criteria. Mean age was  $65.3 \pm 9.8$  years (range 43-80), weight was  $66.4 \pm 7.5$  kg (53-82), parity was  $2.9 \pm 1.0$  (1-6) and all patients were Caucasian, post-hysterectomy, and postmenopausal. There were 10 patients with one previous POP repair, 9 with 2, and 3 with  $> 2$  repairs, while 17/21 had undergone a previous bladder neck or suspension or pubovaginal sling procedure. All procedures involved vault, posterior, and anterior wall triple compartment MSC. Concomitant procedures included enterocele repair (Nichols) (7), bilateral or unilateral salpingo-oophorectomy (2), Burch colposuspension (1), excision of previous mesh (1), and urethrolisis (1). Mean operative time was  $224 \pm 82$  minutes (170-280) with a mean estimated blood loss of  $150 \pm 104$  mL (50-500) and inpatient stay of  $2.9 \pm 1.0$  days (2-6). Physical exam follow-up revealed one asymptomatic grade 2 cystocele at a mean of  $22.2 \pm 13.2$  months (6-48). On VCUG at 6 months, 2/21 (10%) had evidence of cystocele recurrence ( $\geq$  grade 2) on VCUG. Mean preoperative QoL score was  $6.1 \pm 3.4$ , with follow-up subjective UDI-6 and QoL scores at 6-23 months, and  $> 2$  years summarized in Table 1. Stress incontinence requiring pubovaginal sling and persistent urge incontinence occurred in one patient each. There was no reported change in sexual function postoperatively in 14 patients sexually active preoperatively, and no reported defecatory dysfunction. Vaginal erosion in 1 patient was managed with local debridement, but no patient required removal of the mesh. One patient developed a postoperative small bowel obstruction.

### Interpretation of results

The abdominal MSC using Marlex mesh is effective for recurrent prolapse, involving all vaginal wall compartments. Objective and subjective improvement were documented at 6 months and persisted with longer follow-up.

### Concluding message

The abdominal MSC is recommended for surgical management of triple compartment recurrent pelvic organ prolapse. Because of minimal perioperative morbidity it should be offered to women who have failed previous prolapse surgery.

*Table 1: Subjective baseline (preoperative) and short and mid-term UDI scores after MSC.*

|       | Pre Operative | 6-23 Months | ≥24 Months |
|-------|---------------|-------------|------------|
| N     | 21            | 19          | 8          |
| UDI-1 | 1.8 ± 1.1     | 0.9 ± 0.8*  | 1.3 ± 1.1  |
| UDI-2 | 1.4 ± 1.2     | 1.0 ± 0.9   | 1.1 ± 0.9  |
| UDI-3 | 1.1 ± 1.0     | 0.9 ± 1.0   | 1.3 ± 1.0  |
| UDI-5 | 1.6 ± 1.3     | 0.3 ± 0.8*  | 1.1 ± 0.9  |
| QoL   | 6.1 ± 3.4     | 2.1 ± 2.6*  | 1.5 ± 1.9* |

\*Statistically significant compared to the preoperative baseline score ( $P < 0.05$ ).

UDI: "Do you experience, and if so, how much are you bothered by..." 1: "frequent urination?", 2: "urine leakage related to the feeling of urgency (sudden desire to urinate)?", 3: "urine leakage related to physical activity, coughing, or sneezing?", 5: "difficulty emptying your bladder?"

(0 = Never, 1 = Slightly, 2 = Moderately, 3 = Greatly)

QoL: "If you had to spend the rest of your life with your urinary condition just the way it is now, how would you feel about that?" (0 = Pleased, 10 = Terrible).

### REFERENCES

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<sup>i</sup> Obstet Gynecol, 1997. **89**: 501-506.

<sup>ii</sup> Urology, 2001. **58**: 33-37.