

## THE EFFECT OF POSTERIOR COMPARTMENT REPAIR ON OUTCOME OF SUB-URETHRAL SLING

### Hypothesis / aims of study

While concomitant repair of posterior compartment defects (PCD) has traditionally been thought to improve the cure rate of stress urinary incontinence (SUI) surgery, recent publications suggest PCD repair increases SUI recurrence after surgical SUI treatment. Thus, repair of PCD at the time of SUI surgery remains controversial. Our objective was to determine if concurrent PCD repair affects SUI outcome in patients undergoing a distal urethral polypropylene sling (DUPS).

### Study design, materials and methods

For inclusion, patients completed a 6 month postoperative UDI-6 and underwent DUPS with concurrent PCD repair (PCDR group) or DUPS alone, leaving a PCD unrepaired (non-PCDR group). Women having concurrent urethrolysis were included, but those having other prolapse surgery were excluded. Baden-Walker staging was performed, and concurrent prolapse, prior incontinence surgery, pad use, and SEAPI staging of valsalva leak point pressure (VLPP) was also recorded. Continuous data were compared via t-test and categorical data via Pearson Chi Square.

### Results

54 women were in the non-PCDR group and 40 were in the PCDR group. The mean age of the cohort was 57 years. The PCD staging for the cohort was: Stage 0-1= 50%, Stage 2= 33%, Stage 3-4= 17%. The PCDR group had higher grade PCDs than the non-PCDR group (75% vs. 31% stage 2-4, respectively,  $p < 0.0001$ ). Preoperatively, the PCDR group reported lower mean pad use (2.0 vs. 3.4 pads per day,  $p = 0.02$ ), but equivalent bother due to SUI (100% vs. 93% moderately-severely bothered,  $p = 0.2$ ) compared to the non-PCDR group, respectively. However, the non-PCDR group did not differ significantly from the PCDR group with respect to age (56 vs. 59 years,  $p = 0.16$ ), cystocele grade (97% vs. 98%  $\leq$  stage 2,  $p = 0.31$ ), uterine/vault prolapse grade (98% vs. 96%  $\leq$  stage 1,  $p = 0.74$ ), VLPP (41% vs. 53% SEAPI stage 2-3,  $p = 0.27$ ), concurrent urethrolysis (21% vs. 35%,  $p = 0.23$ ), or prior anti-incontinence surgery (28% vs. 31%,  $p = 0.68$ ), respectively.

Postoperatively, there was no difference in the PCDR and non-PCDR groups with respect to bother due to SUI (85% vs. 87% with none-mild bother,  $p = 0.78$ ) or pad use (0.78 vs. 0.82 pads per day,  $p = 0.88$ ), respectively.

### Interpretation of results

PCD repair at the time of sling placement for SUI does not appear to influence recurrence of SUI symptoms as assessed by patient self-reporting of symptoms and pad use. This early data suggests that in the era of modern sub-urethral sling surgery, SUI outcome appears to be independent of PCD repair. Further investigation via a prospective, randomized trial is needed to confirm these findings.

### Concluding message

Repair of the posterior compartment at the time of sub-urethral sling placement does not appear to influence the outcome of a concomitant sub-urethral sling procedure.

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**HUMAN SUBJECTS:** This study was approved by the UCLA Institutional Review Board and followed the Declaration of Helsinki Informed consent was not obtained from the patients.