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CADAVERIC FASCIAL PROLAPSE REPAIR WITH SLING (CAPS):
FIVE-YEAR PROSPECTIVE FOLLOW-UP

Hypothesis / aims of study
To present our ongoing experience with cystocele repair and sling (CaPS procedure) using
non-frozen cadaveric fascia lata and transvaginal bone anchors.

Study design, materials and methods
265 women, ages 31-90 (mean 65 years) had the CaPS procedure with a maximum follow-up
of 5 years (range 6-61 months, mean 23 months). A 6 X 8 cm 'T' shaped piece of non-frozen
cadaveric fascia lata is placed transvaginally to repair the cystocele and provide sling support
from the proximal urethra to the bladder neck. The sling is secured to the pubic bone with
transvaginally placed bone anchors. The remainder of the fascial patch is fixed to the levator
complex bilaterally to repair the cystocele defect. Pelvic examination, validated
questionnaires (quality of life and incontinence), and SEAPI scores, administered every 6-12
months postoperatively, provided outcomes for our prospective database.

Results
All patients had Baden-Walker grade 2-4 cystoceles preoperatively. 42% (112/265)
underwent CaPS alone, while 58% (153/265) had CaPS plus vaginal hysterectomy, vault
suspension, and/or rectocele repair. All patients had urodynamic stress incontinence (SUI)
with and/or without prolapse reduction preoperatively.
39% (104/265) were cured of their incontinence (no incontinent episodes), 37% (97/265)
considered their incontinence at least 50% improved, and 24% (61/265) were considered
failures (< 50% incontinence improvement). Of the incontinence failures: 11% (28/265) had
recurrent SUI, 3% (9/265) had urge urinary incontinence, 6% (15/265) had mixed urinary
incontinence, and 3% (9/265) had incontinence of an uncertain type. 48% (29/61) of the
failures had return of their incontinence within the first 6 months postoperatively. 148 patients
had preoperative urgency symptoms. Urgency resolved in 76% (113/148). De novo urgency
developed in 14% (16/117).
260/265 (98%) had a minimum 6 months pelvic exam follow-up. Cystocele recurrence
occurred in 15% (40/260). Of these recurrences, 53% (21/40) were grade I asymptomatic
cystoceles requiring no additional treatment. Symptomatic cystocele recurrence was 7%
(19/260), with an additional repair performed in 3% (7/260).
Mean preoperative and postoperative SEAPI scores were 7.6 and 2.9, respectively (p<0.001).
Mean prolapse quality of life scores decreased from 9.3 preoperatively to 5.7 postoperatively
(p<0.001). 78% (208/265) of patients reported they were ≥ 50% “satisfied with their results”,
and 74% (195/265) would undergo CaPS again.
One patient had long-term urinary retention requiring urethrolysis. Osteitis pubis occurred in
one patient, managed conservatively without sequelae. There were no cases of
osteomyelitis.

Interpretation of results
The intermediate-to-long term cure/improved SUI results of pubovaginal slings and retropubic
suspensions are 85-90%[1]. In this series, our cure/improved SUI results are similar at 84%
(222/265). The advantages of the CaPS procedure are that it is performed completely
transvaginally without suprapubic incision or blind needle passage through the retropubic
space. Additionally, we have shown that the risk of prolonged urinary retention is minimal,
with only one patient requiring urethrolysis.
The CaPS procedure has a symptomatic cystocele recurrence rate of 7% (19/260). The
cystocele recurrence rate after anterior colporrhaphy with more than one-year follow-up is 20-
45% [2,3]. It appears that the use of non-frozen cadaveric fascia lata to reduce the cystocele
under minimal tension is more durable than repairs using the patient’s own inherently weak
tissues reapproximated under tension. With the CaPS procedure, both central and lateral
cystocele defects are addressed and there is no narrowing of the vagina.
Concluding message
With maximum follow up of five years (mean 23 months), the CaPS procedure has shown excellent results with respect to cystocele repair. The subjective incontinence recurrence rate of the CaPS population remains competitive with other sling procedures. We continue to follow these patients to further assess the long-term results.

References