

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 $\geq 50\%$ "satisfied with their results", and 74% (195/265) would undergo CaPS again.

One patient had long-term urinary retention requiring urethrolisis. 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 urethrolisis.

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

- 1) Female stress urinary incontinence clinical guidelines panel summary report on surgical management of female stress urinary incontinence. J Urol, 158: 875-880, 1997.
- 2) Complications of bladder neck suspension procedures. Urol Clin North Am, 18: 339, 1991.
- 3) Anterior vaginal repair for urinary incontinence in women. Cochrane Database Syst Rev, 3: CD001755, 2000.