A comparison of traditional anterior colporrhaphy, polypropylene mesh and porcine dermis in cystocele repair

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Handel LN, Frenkl TL, Kim YH. Results of cystocele repair: A comparison of traditional anterior colporrhaphy, polypropylene mesh and porcine dermis. J Urol 2007;178:153-6.

SUMMARY

This is a retrospective review of 119 patients who underwent cystocele repair by the same urologist using porcine dermal graft, polypropylene mesh or traditional repair from January 1999 to August 2005. Average follow-up of 13.5 months (range two to 46) was available for 99 patients. Fifty-six (57%) underwent cystocele repair using porcine dermal graft, 25 (25%) received polypropylene mesh and 18 (18%) underwent traditional repair. Twenty-two (22%) patients had cystocele recurrence. Thirty-six per cent patients (20 of 56) with porcine dermal grafts had recurrence compared to 4% (one of 25) and 6% (one of 18) using polypropylene and traditional repair, respectively. Mean time to cystocele recurrence was 4.9 months (range 0.5 to 20). Twelve patients (21%) had extrusion of porcine grafts through the anterior vaginal wall incision compared to one (4%) with polypropylene mesh. Short-term failure rate for anterior vaginal wall prolapse using porcine dermis interposition graft was higher than that for traditional anterior colporrhaphy or polypropylene mesh. In addition, the incidence of vaginal extrusion of porcine graft was unacceptably high. Porcine dermis is a less suitable material for cystocele repair than polypropylene mesh or traditional anterior colporrhaphy.
COMMENTS

Recurrent anterior vaginal wall prolapse can develop in more than 20% of patients undergoing traditional anterior colporrhaphy. In light of this high recurrence rate many surgeons have been incorporating synthetic or allograft mesh to augment the repair.

In this study there are some shortcomings, including retrospective design, short follow-up for a study spanning almost six years and a lack of validated questionnaires. Authors report a negative experience with porcine dermis, both in terms of success and extrusion rate. However, others have reported better outcome[1] which may be due to different follow-up times and outcome measures. Apart from this, biological grafts are also associated with allergic reactions and disease transmission. There is paucity of data regarding prospective randomized trials on the use of these biomaterials prior to their widespread human need which might help in reducing such type of experiences. Unless such data are available surgeons should give serious thought prior to embarking on the use of such biological materials.[2]

REFERENCES

1. Gomelsky A, Rudy DC, Dmochowski RR. Porcine dermis interposition graft for repair of high grade anterior compartment defects with or without concomitant pelvic organ prolapse procedures. J Urol 2004;171:1581-4.
2. Maher C, Baessler K, Glazener C, Adams E, Hagen S. Surgical management of pelvic organ prolapse in women. Cochrane library 2004;4:1.

SUMMARY

This prospective clinical study was done to assess the impact of intravesical prostatic protrusion (IPP) on the outcome of trial without catheter (TWOC) following acute urinary retention (AUR). Consecutive white men aged 50 years or older with AUR related to benign prostatic hyperplasia (BPH) were recruited for the study. The mean age of these men was 70.1 years. Men with neurological illness, prostatic carcinoma, abnormal renal function, urethral stricture, residual urine > 1500 ml, prostatic or urethral surgery, being treated with anticholinergics and with severe co-morbid illness were excluded. All were given 10 mg of Alfuzosin daily after catheterization along with treatment of precipitating factors. TWOC was given after two weeks. The prostatic volume was measured with transrectal ultrasound of the prostate (TRUS) immediately after catheter removal. The mean prostatic volume (PV) of this cohort was large (68.3 ml) and their mean IPP was 12.4 mm. Fifty-seven out of 121 men with AUR fulfilled the selection criteria. Of these 57, 18 and 39 had precipitated and spontaneous AUR respectively. A strong correlation was noted between successful TWOC and prostatic volume and IPP. Twenty-five out of 57 (43.9%) had successful TWOC (8/18 in the precipitated group and 17/39 in the spontaneous group). Men with successful TWOC had smaller mean PV (55 vs 70 ml) and smaller mean IPP (7.2 mm vs 16.5 mm). No association was found between age, retention volume, mode of retention (spontaneous or precipitated) and successful TWOC. Men with PV ≥ 50 ml had a three fold risk of unsuccessful TWOC compared to those with PV < 50 ml (P < 0.002). From Receiver Operating Characteristics (ROC) curve analysis, IPP was more accurate than PV in predicting successful TWOC. Of the men with IPP ≤ 10 mm, 78% had successful TWOC compared with 13% success in those with IPP > 10 mm (P < 0.0001).

COMMENTS

Trial without catheter after a short course of α-blockers is often adopted by many urologists for AUR. The predictors for a successful outcome following TWOC are residual urine < 500 ml, gland size < 50 ml, men younger than 65 years, TWOC after prolonged catheterization, lower