34

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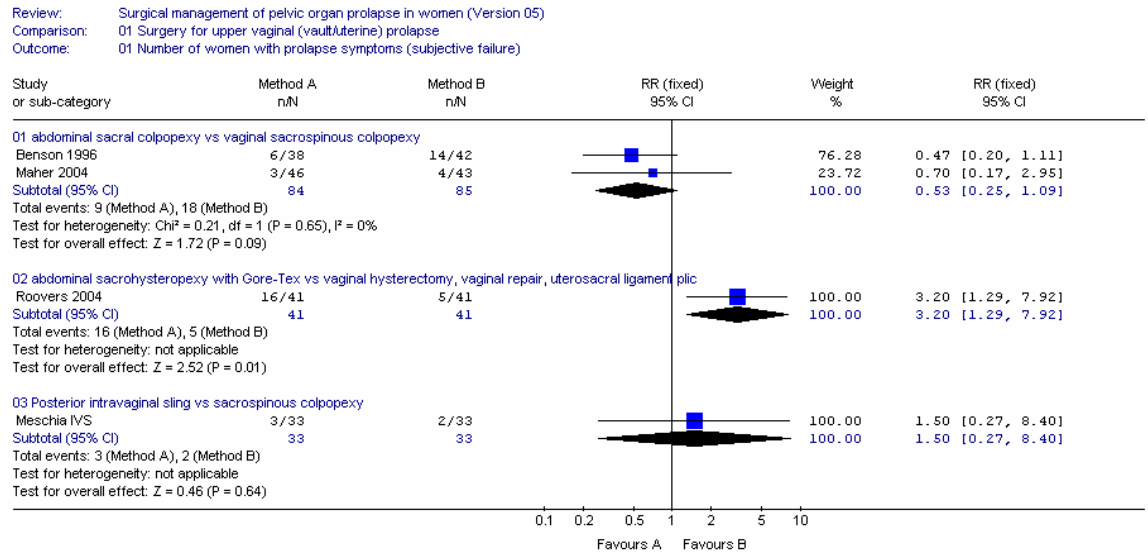
SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS ON SURGERY FOR PELVIC ORGAN PROLAPSE

Hypothesis / aims of study
This review and meta-analysis of randomised controlled trials seeks to determine the effects of surgery in the management of pelvic organ prolapse and associated bladder, bowel and sexual function and to provide evidence-based recommendations.

Study design, materials and methods
RCT's that included surgery for pelvic organ prolapse were identified from MEDLINE, CINAHL, the Cochrane Central Register of Controlled Trials (CENTRAL) and hand searching of journals and conference proceedings. Trials were assessed and data extracted independently by two reviewers.

Results
Nineteen RCT's were identified evaluating 1809 women.
Vault prolapse
In terms of recurrent vault prolapse, the abdominal sacral colpopexy was better than vaginal sacrospinous colpopexy (RR 0.23, 95% CI 0.07 to 0.77). The use of cadaveric fascia lata was inferior to monofilament polypropylene mesh in abdominal sacral colpopexy (RR 3.58, 95% CI 1.28 to 10.03). There was no difference between the posterior intravaginal sling and the sacrospinous colpopexy in one trial. Mesh erosions occurred in 3/33 (9%).

Fig. 1 shows the RR's for subjective failures (prolapse symptoms) of all vault studies.



Anterior vaginal wall prolapse
The anterior repair had statistically significant lower rates of cystocele recurrence compared with Burch colposuspension (RR 0.09, 95% CI 0.01 to 0.64) but higher rates of persisting urinary incontinence (RR 3.39, 95% CI 1.40 to 8.22).
Other trials included the insertion of graft overlays in at least one arm of the trial. Combined data from two trials suggest that the anterior repair with polyglactin mesh reinforcement is superior to a traditional anterior repair (RR 1.48, 95% CI 1.07 to 2.04). A single study showed that anterior colporrhaphy with porcine dermis overlay provides better results (RR 0.37 95% CI 0.16 to 0.83) with one graft rejection requiring surgical removal. Anterior colporrhaphy with or without solvent dehydrated cadaveric fascia lata overlay had comparable objective failure rates as had Prolene Soft versus porcine dermis overlay at only 8 months follow up. In the latter study, erosions occurred in 3/36 and 1/36. Anterior repairs with added porcine dermis showed lower objective failure rates at 25 months follow up compared with polyglactine overlay (RR 0.31, 95% CI 0.13 to 0.73).
The mesh erosion rate for all vaginal non-absorbable mesh insertions was 8/123 (6.5%).

Posterior vaginal wall prolapse
The vaginal approach was associated with a lower rate of recurrent rectocele and/or enterocele than the transanal approach (RR 0.24, 95% CI 0.09 to 0.64).

Interpretation of results
Data were limited and adequately powered RCT's are urgently needed. Abdominal sacrocolpopexy had a lower rate of recurrent vault prolapse and dyspareunia but a longer operating time, longer time to return to activities of daily living and increased cost than the vaginal sacrospinous colpopexy. The use of a polyglactin mesh overlay during anterior vaginal repair may reduce the risk of recurrent cystocele. Limited evidence suggests that posterior vaginal repair may

have a better anatomical outcome than transanal repair. There is currently no evidence to support the routine use of non-absorbable mesh in vaginal prolapse surgery.

Concluding message

There is a paucity of good quality randomised controlled trials especially of studies involving the new meshes available for vaginal prolapse surgery. Limited data only supports the use of non-absorbable mesh for abdominal sacrocolpopexy and the polyglactin graft overlay in anterior vaginal wall repairs.

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HUMAN SUBJECTS: This study did not need ethical approval because this is a review and metaanalysis. The original studies had ethical approval but followed the Declaration of Helsinki Informed consent was obtained from the patients.