

LAPAROSCOPIC COLPOSUSPENSION FOR URINARY INCONTINENCE IN WOMEN. COCHRANE SYSTEMATIC REVIEW 2017

Aim

Laparoscopic colposuspension was one of the first minimal access operations for the treatment of women with stress urinary incontinence with the presumed advantages of avoiding major incisions, shorter hospital stay and quicker return to normal activities. This evidence update from the Cochrane Group evaluated and compared the effectiveness of laparoscopic colposuspension, addressing the question "Is laparoscopic colposuspension a valid surgical alternative for women with stress urinary incontinence?"

Methods

Update of the Cochrane review of randomised or quasi-randomised trials that included laparoscopic colposuspension for the treatment of stress or mixed urinary incontinence. The Cochrane Incontinence Specialised Register, which contains trials identified from the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, MEDLINE In-Process, MEDLINE Epub Ahead of Print, CINAHL, ClinicalTrials.gov, WHO ICTRP and handsearching of journals and conference proceedings (searched 8 March 2017) and the reference lists of relevant articles to identify eligible trials. Additional trials were sought from other sources and authors were contacted for unpublished data and trials.

Results

We identified 25 eligible trials for this review, with data contributed by 2179 randomised women.

Twelve trials (1,304 women) compared laparoscopic colposuspension (using sutures or mesh) with open colposuspension. For subjective cure of incontinence within 18 months, moderate quality evidence suggested little difference between laparoscopic colposuspension when using sutures and open colposuspension (RR 1.03, 95% CI 0.97 to 1.10). However when comparing laparoscopic colposuspension using mesh to open colposuspension the subjective cure rates up to 18 months were seen to be lower (RR 0.72, 95% CI 0.64 to 0.80) although this was based on low quality evidence. Beyond 18 months after surgery, we found some evidence suggesting little difference between laparoscopic colposuspension and open colposuspension but the data was very limited. In terms of adverse events, moderate quality evidence suggested greater risk of perioperative complications with open colposuspension than with laparoscopic colposuspension using sutures (RR 0.71, 95% CI 0.57 to 0.88) and a similar risk of de novo detrusor overactivity between open and laparoscopic colposuspension (RR 1.29, 95% CI 0.72 to 2.30). We identified inconclusive, low quality evidence regarding other adverse effects in the comparison between laparoscopic colposuspension and open colposuspension.

Nine trials (412 women) compared laparoscopic colposuspension with mid-urethral vaginal tapes. For subjective cure of incontinence within 18 months Low quality evidence suggested there may be little difference between laparoscopic colposuspension when using sutures and midurethral slings (RR 1.01, 95% CI 0.88 to 1.16). However comparing laparoscopic colposuspension using mesh to midurethral sling procedures, the subjective cure rates up to 18 months were seen to be lower (RR 0.71, 95% CI 0.55 to 0.91) although this was based on low quality evidence. Beyond 18 months after surgery, we found some evidence suggesting little difference between laparoscopic colposuspension and or midurethral sling procedures but data was very limited. We identified inconclusive, low quality evidence regarding adverse effects in the comparisons between laparoscopic colposuspension and midurethral slings.

Five trials (463 women) compared different methods of laparoscopic colposuspension with each other. Low quality evidence suggested higher subjective cure rates up to 18 months after laparoscopic colposuspension with two sutures than the same procedure with one suture (RR 1.37, 95% CI 1.14 to 1.64).

Interpretation of results: Regarding subjective incontinence, currently there is no evidence of a difference in effectiveness between laparoscopic colposuspension and open colposuspension, nor between laparoscopic colposuspension and midurethral sling procedures. However, when laparoscopic colposuspension is performed, the use of two sutures appears to be more effective than one.

Concluding message: In the context of current safety concerns raised regarding the use of tapes in continence surgery, where in 2016 the FDA reclassified urogynecologic surgical mesh instrumentation from class I medical devices (low risk) into class II (intermediate risk) and the more recent legislative proposal in the European Parliament in 2017 proposing to reclassify the implantable device procedures from a class II device (medium risk) into class III device (high risk), it is particularly important that other surgical options such as laparoscopic colposuspension are thoroughly investigated using robust methods to ensure women and their health care providers can make informed decisions regarding treatment.

Fig 1 Laparoscopic colposuspension versus open colposuspension (Subjective cure within 18 months)

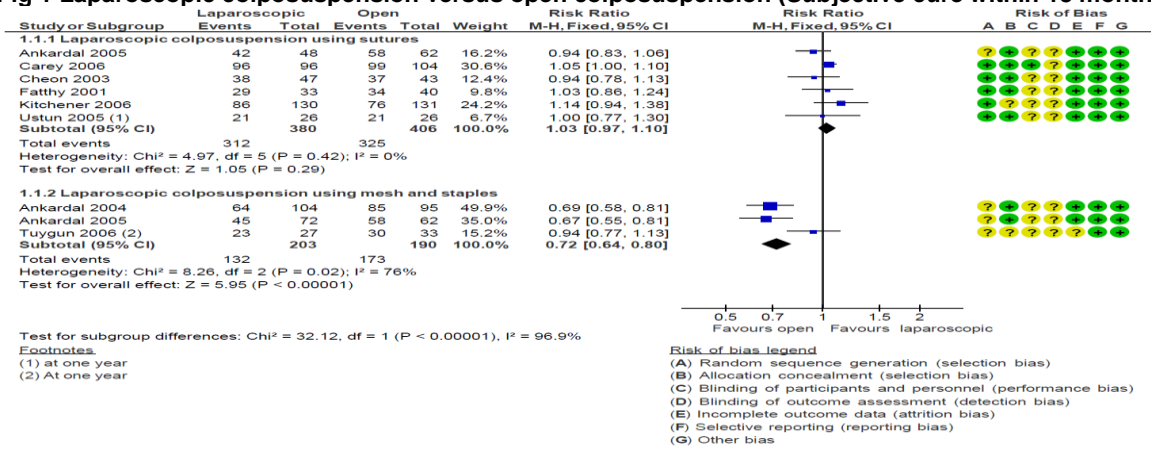


Fig 2 Laparoscopic colposuspension versus open colposuspension (Subjective cure 18 months up to 5 years)

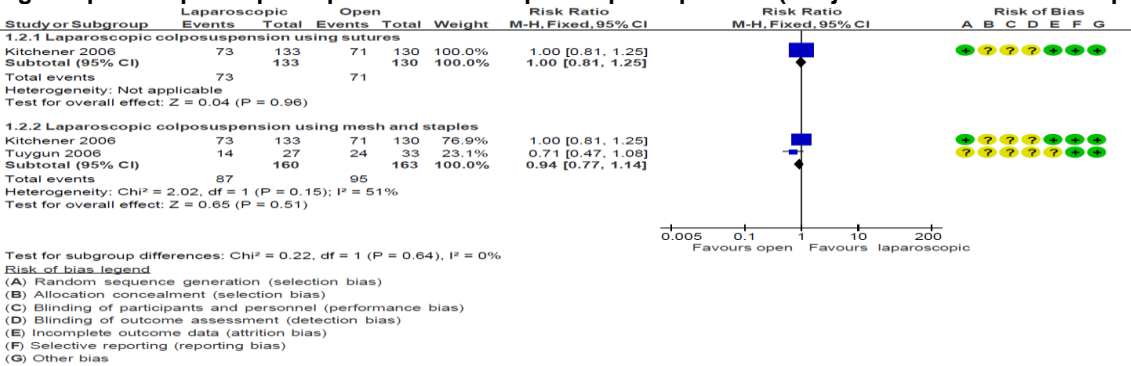
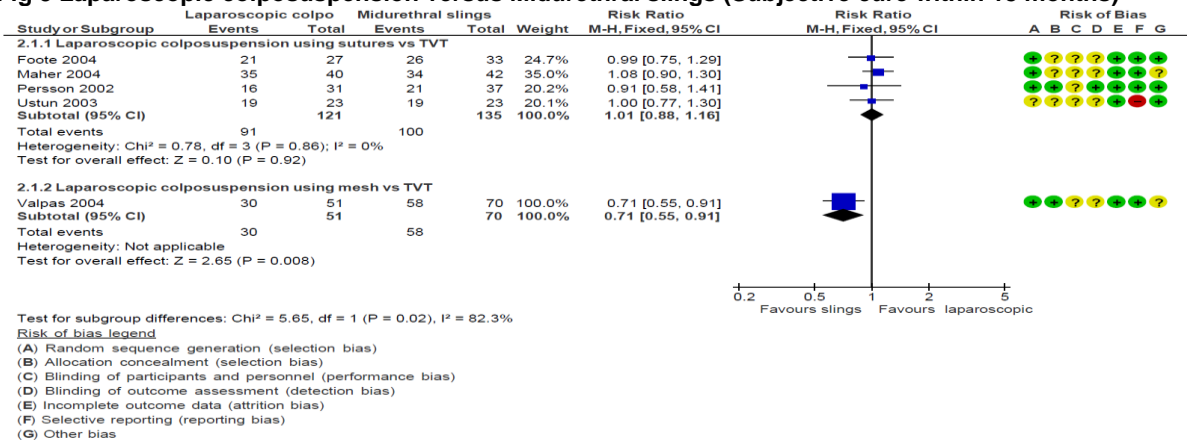


Fig 3 Laparoscopic colposuspension versus Midurethral slings (Subjective cure within 18 months)



Disclosures

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