

## IMPACT OF INCONTINENCE SURGERY ON SEXUAL FUNCTION: A SYSTEMATIC REVIEW AND META-ANALYSIS.

### Hypothesis / aims of study

It is now widely accepted that Urinary incontinence has an adverse impact on sexual function resulting in coital incontinence and a variety of other symptoms impacting on sexual function (1,2). The reports on response of sexual function following the treatment of urinary incontinence are confusing. Some studies suggest deterioration of sexual function, some an improvement whereas others are equivocal. The aim of this systematic review was to investigate the impact of surgery for stress incontinence on coital incontinence and overall sexual function.

### Study design, materials and methods

**Search strategy:** The following databases were searched: Cochrane Incontinence Group Specialized Register of Controlled Trials, The Cochrane Central Register of Controlled Trials, MEDLINE, and EMBASE for trials of incontinence surgery assessing sexual function and coital incontinence before and after surgery.

**Selection criteria:** Observational studies and randomised controlled trials investigating the impact of surgical correction of stress urinary incontinence on sexual function were included. Surgical interventions included TVT, TVT-O, TOT, Burch and AFS. Studies which included patients undergoing concurrent prolapse surgery were excluded from the analysis.

**Data collection and analysis:** Data extraction and analysis was performed independently by two authors (SJ and KA). Two-by-two tables were generated for dichotomous outcomes and expressed as odds ratios (OR) with 95% confidence intervals (CI). Coital incontinence was analysed separately and OR with 95% CI calculated. For continuous outcomes ie where a questionnaire was used for assessment of sexual function a standardised mean difference was used.

The data were analysed in Review Manager 5 software.

### Results

24 articles were identified which assessed sexual function and/or coital incontinence following continence surgery in the absence of prolapse. The results suggest evidence for significant reduction in coital incontinence post surgery (OR 0.10; 95% CI 0.06, 0.17). Despite the fact that the majority of the studies showed a similar prevalence of sexual dysfunction pre and postoperatively, combined analysis of all studies suggested a significant albeit small chance of reducing sexual problems (OR 0.14, 95% CI 0.07, 0.30). The overall odds of improvement were 7 times greater than of deterioration.

A subgroup analysis of the most commonly performed procedures ie TVT, TOT and TVTO demonstrated similar results with evidence of deterioration of coital incontinence (OR 0.13; 95% CI 0.07, 0.24) and a mild reduction in sexual problems (OR 0.14; 95% CI 0.06, 0.33) postoperatively.

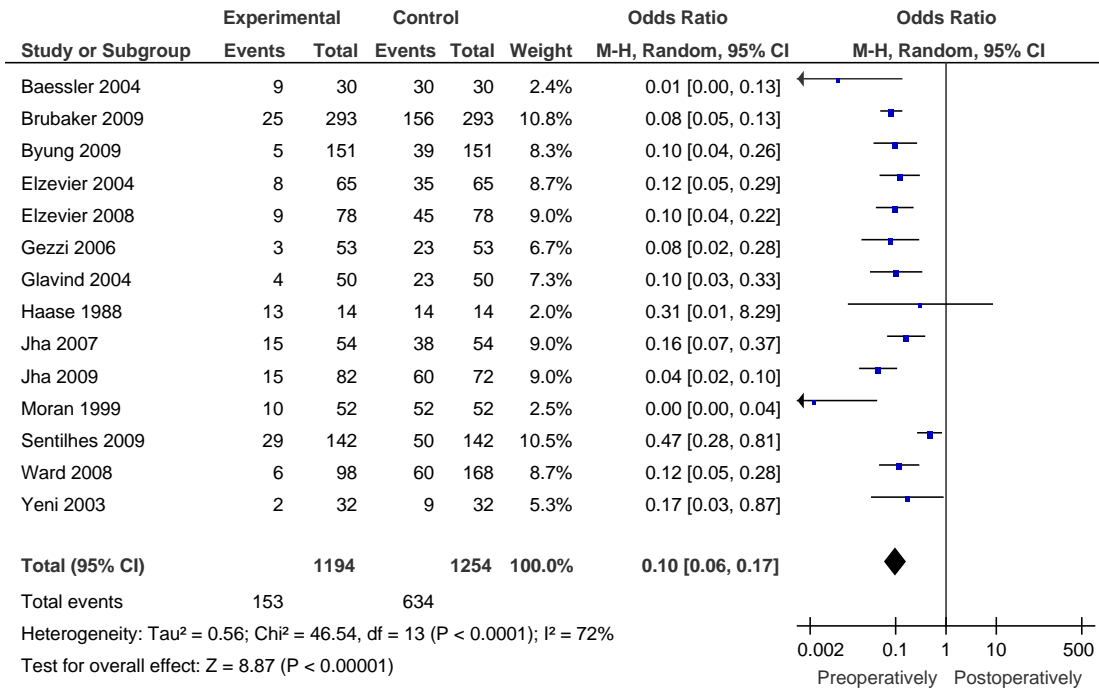
### Interpretation of results

Coital incontinence is significantly reduced following continence surgery. The current evidence for stress incontinence surgery and its impact on sexual function is limited. Despite the fact that the findings of the study suggest some improvement in sexual function we need to be cautious when interpreting these results as there were several methodological problems with the quality of the primary research particularly related to heterogeneity of studies, use of different outcome measures and the absence of well designed randomised controlled trials.

### Concluding message

Adequately powered Randomised controlled trials of interventions targeting sexual dysfunction are needed to assess the clinical relevance of continence surgery in patients with urinary incontinence and associated sexual problems.

Figure 1. Forest plot demonstrating reduction in coital incontinence postoperatively.



## References

1. Aslan G, Koseoglu H, Sadik O, Gimen S, Cihan A, Esen A. Sexual function in women with urinary incontinence. Int J Impot Res 2005; 17(3):248-251.
2. Salonia A, Zanni G, Nappi RE, Briganti A, Deho F, Fabbri F et al. Sexual dysfunction is common in women with lower urinary tract symptoms and urinary incontinence: results of a cross-sectional study. Eur Urol 2004; 45(5):642-648.

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<b>Is this a clinical trial?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>No</b>
<b>This study did not require ethics committee approval because</b>	<b>Systematic Review</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>No</b>