136

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POST OPERATIVE URINARY INCONTINENCE FOLLOWING TOTAL ABDOMINAL HYSTERECTOMY OR SUPRACERVICAL HYSTERECTOMY: A META-ANALYSIS

Hypothesis / aims of study
We conducted a meta-analysis of randomized trials to evaluate if the type of hysterectomy women undergo for benign indications: total abdominal hysterectomy or supracervical hysterectomy, has an impact on the development of urinary incontinence.

Study design, materials and methods
We did this metaanalysis according to a predetermined protocol following recommendations of the quality of reporting metaanalysis (QUOROM) statement.(1) Relavent articles we identified by searching MEDLINE, EMBASE, CINAHL, Biological abstract, the Cochrane Library, abstracts at major meetings and bibliographies of retrieved articles to identify trials comparing supracervical hysterectomy and total abdominal hysterectomy. All randomized trials reporting urinary symptoms as an outcome with a minimum of one year of follow up were included. We assessed the effect of the two different types of hysterectomies by estimating relative risks of urinary incontinence. Meta-analysis was carried out using a fixed effect model to calculate summary relative risk estimates and 95% confidence intervals. Chi square was used to measure heterogeneity and considered significant if $p< 0.05$.

Results
Three randomized trials involving 733 patients met our selection criteria and were included for analysis. Chi square for heterogeneity was non-significant ($p > 0.05$) for the urinary stress incontinence, urge incontinence, frequency, incomplete emptying and prolapse. All studies could therefore be pooled. Analysis showed no evidence of decreased risk of stress urinary incontinence in women who underwent supracervical hysterectomy compared to women who underwent total abdominal hysterectomy (relative risk 1.3, 95% CI 0.94-1.78, $p= 0.16$). Similarly urge incontinence was not decreased in the supracervical group (Relative risk 1.37, 95% CI 0.84-1.85, $p = 0.25$). The results were not statistically significantly different for urinary frequency or incomplete emptying

Interpretation of results
There is no evidence of a decreased risk for either stress or urge urinary incontinence following a supracervical hysterectomy as compared to total hysterectomy after 1 year follow up despite a positive trend. Longer term follow up is recommended in women who have undergone hysterectomy to follow changes in incontinence rates.

Concluding message
Longer term follow up is recommended in women who have undergone hysterectomy to follow changes in incontinence rates. However, there is presently no evidence to recommend a supracervical hysterectomy over a total abdominal hysterectomy for the prevention of future incontinence.

References
Lancet (1999) 354;1896-900.

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Is this a clinical trial?	**No**
What were the subjects in the study?	**None**