Total laparoscopic hysterectomy versus total abdominal hysterectomy for endometrial cancer: a meta-analysis
Wang HL, Ren YF, Yang J, Qin RY, Zhai KH

CRD summary
This review concluded there was new evidence of a benefit of total laparoscopic hysterectomy over total abdominal hysterectomy for major complications, total complications and postoperative complications in women with endometrial cancer. The authors’ conclusions appear to follow from the results, but should be viewed with caution due to small numbers of patients and lack of clarity about included trial quality.

Authors' objectives
To investigate the effects of total laparoscopic hysterectomy versus total abdominal hysterectomy in women with early-stage endometrial cancer.

Searching
PubMed, EMBASE, CBM (Chinese Biological Medicine) and The Cochrane Library were searched with no language or date restrictions. Search terms were reported. Reference lists of identified studies and relevant reviews were also searched.

Study selection
Randomised controlled trials (RCTs) that compared total laparoscopic hysterectomy versus total abdominal hysterectomy in women with early-stage endometrial cancer were eligible for inclusion. The primary endpoints were the major complication rate and mortality rate. The second end-points were total complication rate, postoperative complication rate and intraoperative complication rate.

The eligibility criteria for inclusion of women with endometrial cancer differed between studies.

The authors did not report how many reviewers selected studies for inclusion.

Assessment of study quality
Trial quality was assessed using the Jadad scale; trials with scores over 3 were defined as high quality.

The authors did not report how many reviewers assessed the study quality.

Data extraction
Data were extracted to calculate relative risks with their 95% confidence intervals.

The authors did not report how many reviewers extracted study data.

Methods of synthesis
Pooled relative risks and 95% confidence intervals were calculated using the Mantel-Haenszel fixed-effect model where there was no evidence of heterogeneity; otherwise the DerSimonian and Laird random-effects model was used. Heterogeneity was assessed using Cochran Q and I². X² test (p<0.1) was considered evidence of heterogeneity.

Publication bias was assessed by funnel plot and Egger's test.

Results of the review
Nine RCTs (1,263 women) were included in the review (range 52 to 332 women). Five trials were considered to be of high quality.

Meta-analyses showed that total laparoscopic hysterectomy was associated with lower risks of major complications (RR 0.53, 95%CI 0.29 to 0.98; I²=52.8%), total complications (RR 0.59, 95% CI 0.42 to 0.82; I²=63.8%) and postoperative complications (RR 0.57, 95% CI 0.40 to 0.83; I²=52.2%) compared with total abdominal hysterectomy.
However, there were no obvious differences in risks of intraoperative complications and mortality between the two groups.

There was no evidence of publication bias.

**Authors’ conclusions**
The results provided new evidence of a benefit of total laparoscopic hysterectomy over total abdominal hysterectomy for major complications, total complications and postoperative complications in endometrial cancer patients.

**CRD commentary**
The review question was clear and the inclusion criteria reported. Efforts were made to find published studies and no language restrictions were applied, but unpublished studies were not sought so there was a possibility that relevant trials could have been missed. However, no evidence of publication bias was identified. The authors did not report how many reviewers were involved in the study selection, quality assessment and data extraction, so reviewer bias and error was possible.

The authors reported overall score of the Jadad scale for trial quality, but full details were not reported which made it difficult to determine the reliability of the included trials. Details of the trial study characteristics were not reported, which made it difficult to assess the different cancer stage and grade of patients between trials. Appropriate methods were used to pool data and assess heterogeneity; some of the statistically significant outcomes showed evidence of heterogeneity.

The authors’ conclusions appear to follow from the results, but should be viewed with caution due to small numbers of patients and lack of clarity about included trial quality.

**Implications of the review for practice and research**
**Practice:** The authors did not state any implications for practice.

**Research:** The authors stated that RCTs with longer term outcome assessments and more patient outcomes are urgently needed.

**Funding**
Not reported

**Bibliographic details**

**Original Paper URL**

**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Adult; Aged; Aged, 80 and over; Body Mass Index; Breast Neoplasms /etioloogy /mortality /pathology; Female; Follow-Up Studies; Humans; Lymphatic Metastasis; Male; Middle Aged; Neoplasm Staging; Obesity /complications /physiopathology; Prognosis; Receptor, ErbB-2 /metabolism; Receptors, Estrogen /metabolism; Receptors, Progesterone /metabolism; Retrospective Studies; Survival Rate; Young Adult

**AccessionNumber**
12013031087

**Date bibliographic record published**
20/06/2013
Date abstract record published
09/07/2014

Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.