Replacement of abdominal hysterectomy by the laparovaginal technique: its success and limitations

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Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

Health technology
Laparovaginal hysterectomy.

Type of intervention
Treatment.

Economic study type
Cost-effectiveness analysis.

Study population
Patients needing hysterectomy. In order to assess laparovaginal procedure, those patients with pelvic disease, including endometriosis, pelvic adhesions or ovarian cysts, needing ovarian removal, or with the uterus enlarged to the size of 16-week pregnancy were considered.

Setting
Hospital. The economic study was conducted in Melbourne, Australia.

Dates to which data relate
Effectiveness and resource data were collected from January 1991 to March 1993. Price date was not specified.

Source of effectiveness data
Single study.

Link between effectiveness and cost data
Costing was undertaken on the same patients included in the clinical analysis. It seems that costing was done prospectively.

Study sample
127 patients underwent laparovaginal procedure, and 17 abdominal surgery for hysterectomy. No power calculations were reported.

Study design
Case series, multicentre study (three private hospitals). Duration of follow-up was not specified. There was no loss to follow-up.
Analysis of effectiveness
Analysis was based on intention to treat. The side-effects were considered as clinical outcomes. Groups were not comparable in terms of clinical features. In particular, the authors reported that there was bias in selecting patients undergoing abdominal hysterectomy, since this was performed when it was clinically suitable.

Effectiveness results
Of the 127 patients having laparovaginal hysterectomy, 20 patients developed complications. Complications occurred in 4 of the 17 patients having abdominal hysterectomy.

Clinical conclusions
From this study, it appears that complication rates are lower for laparovaginal hysterectomy. This has been confirmed by studies reported in the literature, although it was reported that the incidence of more serious complications may be similar.

Measure of benefits used in the economic analysis
Complication rates.

Direct costs
Costs and quantities were reported separately. Hospital costs were considered, including duration of operation, disposable equipment, depreciation rates, and length of hospital stay. Costs were based on actual data. Price date was not given.

Currency
Australian dollars (Aus $).

Sensitivity analysis
Not performed.

Estimated benefits used in the economic analysis
Of the 127 patients having laparoscopic hysterectomy, 20 patients developed complications. Complications occurred in four of the 17 patients having abdominal hysterectomy.

Cost results
The total costs of performing laparovaginal and abdominal hysterectomy were Aus $5,735 and Aus $5,067 respectively. Costs of treating side-effects were not considered.

Synthesis of costs and benefits
Costs and benefits were not combined.

Authors’ conclusions
The authors concluded that laparovaginal hysterectomy is capable of substituting most abdominal procedures. However, the authors said that the assessment of the complication rate and cost-effectiveness of the procedure requires further study.
CRD Commentary
As the authors themselves recognise, the small sample size and special bias in selecting patients undergoing abdominal hysterectomy impede any significant conclusions. On the side of the outcome evaluations, the assessment of the comparative complication rates would require some criteria for defining postoperative complications. Moreover, costs of treating clinical complications were not considered. Therefore, this study can be only considered as a preliminary analysis.

Implications of the study
More rigorous and comprehensive studies are required to assess the cost-effectiveness of the laparovaginal procedure.

Bibliographic details

Indexing Status
Subject indexing assigned by CRD

MeSH
Costs and Cost Analysis; Hysterectomy /methods; Hysterectomy, Vaginal /methods; Laparoscopy; Laparotomy; Length of Stay; Uterus /pathology

AccessionNumber
21995000083

Date bibliographic record published
11/06/1996

Date abstract record published
11/06/1996