



EFFECTIVENESS AND PREDICTORS OF OUTCOME OF LAPAROSCOPIC PELVIC TOTAL PERITONEAL EXCISION

Introduction

Endometriosis is a common gynaecological condition and affects the health related quality of life of women. Laparoscopic pelvic peritoneal excision of endometriosis is an effective surgical option for treating endometriosis. However, 19-36% re-operation rate following conservative surgery has been reported. In order to improve effectiveness, reduce recurrence and save ovaries, radical excision of endometriosis has been suggested.

Aim and Objectives

To determine:

- the long term effectiveness of radical pelvic peritoneal excision of endometriosis on pain and health related quality of life
- the predictors of outcome of surgery (re-operation and symptom improvement)

Methodology

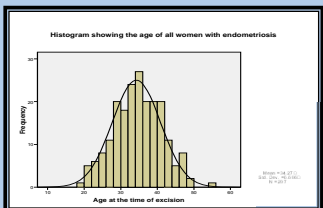
Retrospective study of clinical case notes and a postal questionnaire. A total of 207 consecutive women who underwent laparoscopic total pelvic peritoneal excision of visually diagnosed endometriosis from December 1999 to December 2006.

There were two parts to the study:

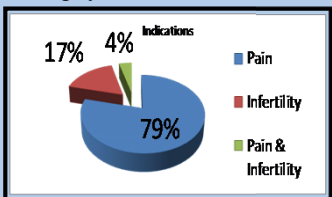
- Part 1 – clinical case note review of 207 women who underwent surgery for endometriosis.
- Part 2 – postal questionnaire sent to the 207 women whose case notes were reviewed in Part 1 of the study. The questionnaire included pain measures for the following:
 - pain before periods
 - pain during periods
 - pain at defaecation
 - pain at micturition
 - backache
 - pain at intercourse
 - pain at other times

A validated Endometriosis Health Profile (EHP-5)⁸ questionnaire for health related quality of life was used.

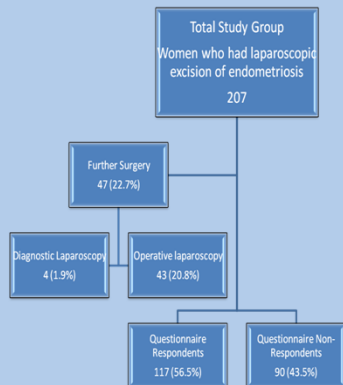
Histogram showing age of all women with endometriosis



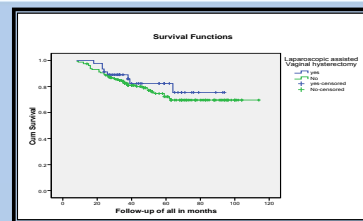
Pie chart to demonstrate the indications for surgery



Flow chart of women in the study



Kaplan Meier re-operation free survival estimates for women with and without laparoscopic assisted vaginal hysterectomy at the time of excision

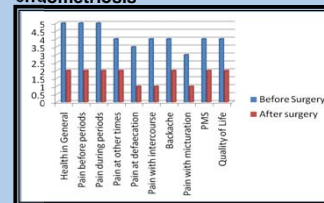


Comparison between characteristics of women who responded and who did not respond to follow-up questionnaires

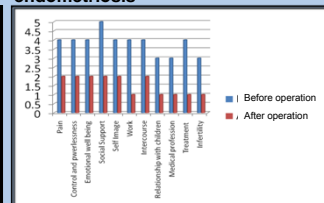
*Mann Whitney test, ** t test, *** Pearson chi-square.

Characteristic	Respondents	Non respondents	P values
Number (n %)	117 (56.5%)	90 (43.5%)	
Age	34.88 (SD 6.6)	33.47 (SD 6.57)	0.127**, 95%CI:-0.4, 3.2
Parity Nulliparous	57 (48.7%)	37 (41.1%)	0.230**
1-2	50 (42.7%)	42 (46.7%)	95%CI: -0.3, 0.074
3-4	9 (7.7%)	10 (11.1%)	
5-6	1 (0.9%)	1 (1.1%)	
Indications of surgery			0.626***
Pain	90 (76.9%)	74 (82.2%)	LR: 0.622
Infertility	6 (5.1%)	3 (3.3%)	
Pain and infertility	21 (17.9%)	13 (14.4%)	
Type of endometriosis			0.018***
Superficial	31 (26.5%)	38 (42.2%)	OR 2.03,
Deep	86 (73.5%)	52 (57.8%)	95% CI: 1.1, 3.6
Cul de sac obliteration	48 (71.6%)	19 (28.4%)	0.002, OR=2.6,
			95%CI: 1.3, 4.8
Theatre occupancy Median (IQR)	209 (175-250)	206 (165-232)	0.782*
LAVH at operation 1 or operation 2, n=67	38 (56.7%)	29 (43.3%)	0.97***, OR=1
			95%CI: 0.6, 1.8
Further surgery, n=47	28 (59.6%)	19 (40.4%)	0.631***, OR=1.18,
			95%CI: 0.6, 2.2

Comparison of patient responses to pain questionnaire before and after laparoscopic excision of endometriosis



Comparison of patients' responses to EHP 5 questionnaire before and after laparoscopic excision of endometriosis



Patient satisfaction with Laparoscopic excision of endometriosis

Question	Yes n (%)	No n (%)	Total
Has the operation improved your symptoms?	103 (89.6%)	12 (10.4%)	115
Would you recommend this to a friend who has the same condition?	111 (98.2%)	2 (1.8%)	113

Results of paired sample test comparing global pain score before and after laparoscopic excision of endometriosis

	Before operation Median*(IQR)	After operation Median*(IQR)**	Difference Median (IQR)	Difference between global pain score before and after***	
				Z score	P value
Global Pain Score	28 (23-31)	13 (9.5-18.5)	12 (7-18.5)	8.152	<0.001

Conclusion

Laparoscopic total pelvic peritoneal excision of endometriosis improves pain and health related quality of life on long term follow-up. Risk of re-operation is less if hysterectomy is performed at the same time. Re-operation is mainly for ovarian adhesions or hysterectomy. Recurrence of endometriosis is rare in the excised area. Oophorectomy is not needed at the time of excision or at re-operation.

Standard/Guideline/Evidence Base

1. Abbott JA, Howe J, Clayton RD, Garry R. The effects and effectiveness of laparoscopic excision of endometriosis: a prospective study with 2-5 year follow-up. *Human Reproduction*, 18 (9): 1922-1927, 2003. 2. Abbott J, Howe J, Hunter D, Holmes M, Finn P, Garry R. Laparoscopic excision of endometriosis: a randomized, placebo-controlled trial. *Fertility and Sterility*, 82 (4): 878-884, 2004. 3. Garry R, Clayton R, Howe J. The effect of endometriosis and its radical laparoscopic excision on quality of life indicators. *British Journal of Obstetrics and Gynaecology*, 107(1): 44-54, Jan 2000. 4. Kennedy S, Bergqvist A, Chapron C, D'Hooghe T, Dunselman G, Greb R, et al.ESHRE guideline for the diagnosis and management of endometriosis. *Human Reproduction*, 20 (10): 2698-2704, 2005. 5. Royal College of Obstetricians and Gynaecologists. *The investigation and management of endometriosis*. RCOG Guideline Number 24, London, 2006. 6. Redwine D. B., and D. B. Redwine. Conservative laparoscopic excision of endometriosis by sharp dissection: life table analysis of reoperation and persistent or recurrent disease. *Fertility and Sterility*, 56 (4): 628-634, 1991. 7. Jones G, Kennedy S, Barnard A, Wong J, Jenkinson C. Development of endometriosis Quality of life instrument: The Endometriosis Health Profile-30. *Obstetrics & Gynaecology*, 98 (2): 258-264, 2001. 8. Jones G, Jenkinson C, Kennedy S. Development of the short form endometriosis health profile questionnaire: The EHP-5. *Quality of life research*, 13: 695-704, 2004.