

The Laparoscopy that doesn't diagnose Endometriosis – Is there a role?: Results from the Persistent Pelvic Pain (PPP) Study

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Introduction

Persistent pelvic pain (PPP) is a complex and debilitating condition, and remains an important health concern for Australian women.(1) Endometriosis is associated with persistent pelvic pain (PPP), however up to half the patients undergoing laparoscopy for PPP will not have endometriosis.(2) Patient outcomes following a laparoscopy that fails to diagnose a cause for pain are unknown. One aim of the PPP Study was to assess longitudinal pain scores, pain catastrophising and quality of life (QOL) outcomes for patients who undergo a laparoscopy which does not diagnose endometriosis.

Methods

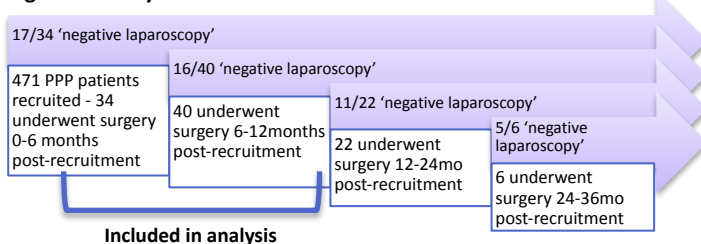
An observational, prospective cohort study was conducted at the Mercy Hospital for Women(MHW) Melbourne, Australia and is part of a larger Persistent Pelvic Pain (PPP Study) (ACTRN12616000150448).(3) Women aged 18-50years referred with pain were recruited and followed for 36-months with 6-monthly surveys. Outcomes were assessed using 6-point likert scales, the Pain Catastrophisation Score (PCS) and WHO-QOL Bref inventory. Operation reports were appraised using rASRM criteria to diagnose and stage endometriosis. A negative laparoscopy was determined by visual and/or histological inspection. Post-operative scores at 6, 12, 24, and 36months were compared to the baseline.

Results

Between Feb 2015 and Dec 2017, 471 women were recruited; 102 underwent laparoscopy or laparotomy during the study period. Seventy-four patients (73%) underwent surgery in the first 12months of participation; this group is the focus of this study. Endometriosis was diagnosed in 41 (55%) patients; laparoscopy did not identify a cause for pain in the remaining 33 patients.

Fifty-eight (78%) patients completed at least one survey 6months or more following surgery; 17 patients completed a questionnaire 24months or more after surgery.

Figure 1. Study cohort



The median duration of maximum follow-up was 29.8 months. The follow-up rate was similar across both surgical groups.

Amongst patients who had a laparoscopy that did not diagnose a source for the pain, pain scores at 36months for all domains indicated no significant change compared to baseline. Interestingly, patients reported improved satisfaction with their pain symptom control after negative laparoscopy, $p < 0.0001$ (95%CI 1.244 to -0.510). 61.3% of women were pleased with their pain symptom control during post-operative follow-up. PCS-helplessness score at maximal follow-up was significantly reduced compared to baseline ($p = 0.015$) with 62.9% of women with negative laparoscopy outcomes showing improvement. There was no change in reported quality of life domains.

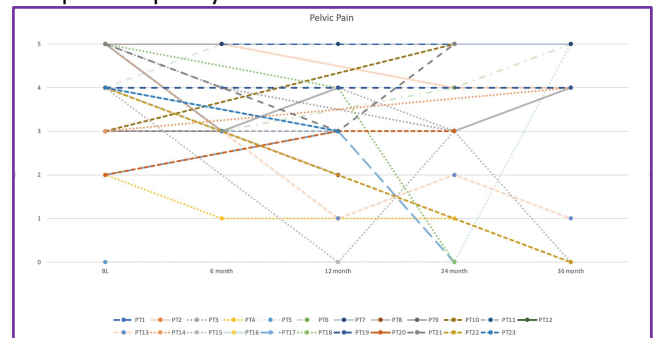


Figure 2. Non-cyclic pelvic pain persists after negative laparoscopy. Individual patient pain scores (6-point Likert)

Discussion

Little is known of the pain and QOL outcomes for patients who have PPP and undergo a laparoscopy without diagnosis of endometriosis.

Evidence from the PPP Study suggests that for the majority of patients who undergo a laparoscopy where a cause for pain is not identified, their pain continues to persist long-term. However, pain catastrophisation may lessen following laparoscopy where no cause for pain is identified, and patient satisfaction with pain control may also benefit. Further prospective studies using objective and validated outcome tools are required, to assess the impact of a negative laparoscopy on the long-term outcomes of women with CPP, and further guide clinicians and patients with regards to who may benefit from (and who may do worse after) a negative laparoscopy.

1. Pelvic Pain Report: The \$6Billion Woman and the \$600Million Girl 2011 [Accessed 30 October 2019.] Available from URL: http://www.fpm.anzca.edu.au/resources/books-and-publications/books-and-publications/publications-1/Pelvic_Pain_Report_RFS.pdf.
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3. Mooney SS, Grover SR. The persistent pelvic pain study: Factors that influence outcomes in women referred to a public hospital with chronic pelvic pain - A study protocol. Aust N Z J Obstet Gynaecol. 2021 Apr;61(2):E6-E11. doi: 10.1111/ajo.13289. Epub 2021 Jan 2. PMID: 33386748.