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Single vs. Multiple Laparoscopies: Pain Status One Year Post-Hysterectomy for Chronic Pelvic Pain

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Single vs Multiple Laparoscopies: Pain Status One Year Post-Hysterectomy for Chronic Pelvic Pain

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Abstract

Despite the prevalence of chronic pelvic pain (CPP)— affecting one in seven women in the U.S.— its cause is often unknown. As such, an evaluation of our current approaches to the work-up of CPP is warranted. Laparoscopy is considered a gold standard tool in the evaluation of CPP with 40% of all laparoscopies in the U.S. performed for this condition [1]. However, limited data exists portraying the clinical importance and outcomes for repeat diagnostic laparoscopies. This is a retrospective case-control study to determine the incidence of multiple laparoscopies for CPP over the past 10 years, and to compare outcomes between patients who underwent single (SL) vs multiple (ML) laparoscopies. We propose that patients who undergo multiple laparoscopies warrant discussion of hysterectomy as our results indicate that resolution of pain in patients who undergo multiple laparoscopies for the indication of CPP is similar to patients undergoing hysterectomy after single laparoscopy.

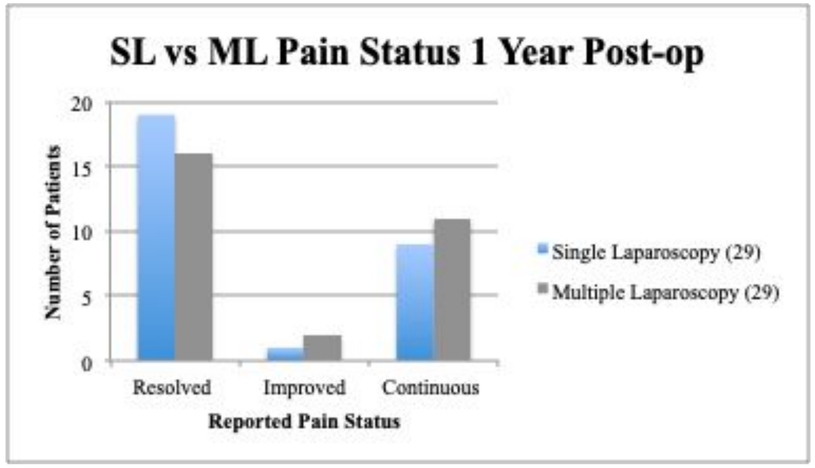
Introduction

- CPP has a prevalence of 3.8% in women but its cause often goes undiagnosed
- Outpatient medical costs related to CPP have been estimated at $881.5 million annually [3]
- The financial burden and negative impact CPP can have on a patient's life warrants an evaluation of the current approach utilized when working up a patient with pelvic pain
- This study aims to compare outcomes between patients undergoing single vs multiple laparoscopies

Methods

- A retrospective chart review was conducted of all female patients within the Henry Ford Hospital System who underwent laparoscopy for CPP from the years 2008-2018
- Data abstraction was conducted through the EMR system and included obtaining the following information: number of laparoscopies, prior imaging, non-surgical management, findings during laparoscopy, pain status post surgery (resolve, improved, persistent/unchanged), hysterectomy for CPP, and intraoperative surgical complications
- The study was compliant with the Health Insurance Portability and Accountability Act and the tenets of the Declaration of Helsinki

Tables/Data



Results

Pain Interval Between Laparoscopies

- There was no significant difference in pain-free intervals between initial and second, second and third, or third and fourth laparoscopies among the ML group (Kruskal-Wallis p=0.635)

Pain Resolution

- In our cohort of 111 patients who underwent multiple laparoscopies, 21 patients (18.9%) reported pain resolution after 1st laparoscopy, 17 (14.9%) after 2nd laparoscopy, and 5 (29.4%) after 3rd laparoscopy
- In the control group, of the 679 patients who underwent a single laparoscopy, 238 (35%) had resolved pain afterwards at potsop visit
- Of the 460 patients in our study that were diagnosed with endometriosis on initial laparoscopy, 79 underwent subsequent laparoscopies because of recurrence of pain (17%). 138 patients with endometriosis never reported resolution of pain despite laparoscopic intervention (30%)
- There was no significant difference in the pain status (resolved, improved, continuous) reported by the patients in the two groups after undergoing a hysterectomy (p=0.434)

Pain Status 1 year Post-Hysterectomy

- In the SL group, 19 (65.5%) were resolved, 1 (3.4%) were improved, and 9 (31.0%) were continuous
- In the ML group, 16 (55.2%) were resolved, 2 (6.9%) were improved, and 11 (37.9%) were continuous. The above pain resolution breakdown for the single lap patients is not significantly different than the above pain resolution breakdown for the multiple lap patients (Fisher exact test p-value=0.681)

Discussion & Implications

- 1 in 6 patients with CPP will undergo multiple laparoscopies, with few studies demonstrating its efficacy in contrast to medical therapy
  - Our data shows a statistically significant resolution of pain in both the control and case groups after hysterectomy for CPP
- Opiates were used twice as much in patients who underwent multiple laparoscopies (30.8%) than those who underwent single laparoscopy (15.1%) to alleviate CPP
  - 13 out of 29 (44.8%) of ML patients being treated with opiates underwent hysterectomy with 5 (38.4%) reporting pain resolution
- The current guidelines for treatment of endometriosis support surgical approaches, leading to the utilization of repetitive episodes of laparoscopies in these patients
  - Endometriosis was the most common finding during single and multiple laparoscopies in our patient sample (43.6% of single laparoscopies and 59.5% of multiple laparoscopies, p=0.002).
  - Offering a hysterectomy to endometriosis patients earlier on in the treatment plan may prevent unnecessary procedures
- There are a variety of psychosocial factors that play into CPP [5]
  - Comorbidities such as anxiety and depression call for an integrative approach to caring for patients with CPP
  - Our data suggests that the combination of Cognitive Behavioral Therapy and laparoscopy may have greater benefit

Conclusions

- In conjunction with lack of impactful pain resolution with multiple laparoscopies, this study demonstrated that there is room for hysterectomy in the management of patients with CPP
  - Patients in the ML group were statistically more likely to report continuous pain status than those in the SL group prior to undergoing a hysterectomy 52.2% vs 38.6% (p=0.010)
  - Patients in the ML group were more likely to undergo a hysterectomy for CPP than patients in the SL group (33.3% vs 8.6%, p=<0.001)
  - 44 of the 108 patients that opted for a hysterectomy for their CPP had endometriosis (41%)

Bibliography

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