

Role of Diagnostic Laparoscopy in Chronic Pelvic Pain

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Abstract

Introduction: Chronic pelvic pain is non cyclic pain of six or more months duration that localizes to the anatomical pelvis, anterior abdominal pain at or below umbilicus, the lumbosacral back, or the buttocks, and is of sufficient severity to cause functional disability or lead to medical care¹Chronic pelvic pain is one of the most common gynecological symptoms and one of the most important in terms of social costs

Objective: To study the role of diagnostic laparoscopy in chronic pelvic pain. To compare the findings of laparoscopy in patients of chronic pelvic pain and patients undergoing routine laparoscopic tubal ligation.

Materials and Method: This study was conducted at Saraswathi institute of medical sciences(HAPUR,U.P) during the period between January 2018 to December 2019. Total 110 cases were enrolled.55 cases who had been suffering from chronic pelvic pain for 6 months (or more) were taken as study group-(A).55cases without any symptoms who underwent laparoscopic sterilization were taken as control group-(B).

Results: 10.60% cases with chronic pelvic pain had normal findings whereas 25.25% cases were normal on laparoscopy. Endometriosis was suspected in 7.27% cases on ultrasonography, where as it was confirmed on laparoscopy in 18.1%.Similarly PID was suspected in 12.72% cases whereas it was confirmed on laparoscopy in 14.54% cases.

Conclusion: In our study we could conclude that the treatment of cases of chronic pelvic pain post diagnostic laparoscopy are adhesiolysis, endometriotic cyst removal, Ovarian Cystectomy and Hydrosalpinx.

Keywords: endometriosis, cystectomy, laproscopy

Introduction

Chronic pelvic pain is non cyclic pain of six or more months duration that localizes to the anatomical pelvis,anterior abdominal pain at or below umbilicus,the lumbosacral back, or the buttocks,and is of sufficient severity to cause functional disability or lead to medical care¹Chronic pelvic pain in one of the most common gynecological symptoms and one of the most important

in terms of social costs.Chronic pelvic pain (CPP) is a common symptom and a difficult condition to manage specially during adolescence.Too often the physical signs are not specific².Chronic pelvic pain is more common than its cause being diagnosed. There is no correlation between pain and amount of tissue damage. It affects many women and leads to significant impairment in their quality of life. Howard conducted a study and found that 61% of the patients with chronic pelvic pain were found to have endometriosis, pelvic adhesions, pelvic inflammatory disease and ovarian cysts. women with primary infertility who were asymptomatic went for laparoscopy found the similar results in 28% of this study group. Therefore, the researcher stated that laparoscopy should be the last method used in etiology research and concluded that laparoscopy is still controversial. Our study aimed to investigate the causes for chronic

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pelvic pain using laparoscopy and compare the results with asymptomatic patients undergoing laparoscopic sterilization.

Material and Method

The prospective study was conducted at Saraswathi institute of medical sciences, Hapur the period of 2018-2019.

Total 110 cases were enrolled. 55 cases who had been suffering from chronic pelvic pain for 6 months (or more) were taken as study group-(A). 55 cases without any symptoms who underwent laparoscopic sterilization were taken as control group-(B).

Selection Criteria :

cases from age 20-40 years

Exclusion Criteria

(1) Women with morbid obesity, severe hypertension, coronary artery disease, acute bronchiolitis, chronic obstructive lung disease.

(2) Women having systemic illness, cardiac illness, bleeding disorders and coagulopathies

(3) Women having local abdominal infection and PID

Method of Analysis

McNemar Chi square test.

The test is applied to a 2×2 contingency table, which tabulates the outcomes of two tests on a sample of n subjects, as follows.

Results

A Prospective study was conducted in Saraswathi institute of medical sciences, Hapur from 2018-2019. Total 110 cases were enrolled. 55 cases who had been suffering from chronic pelvic pain for 6 months (or more) were taken as Study Group (Group A). 55 cases without any symptoms who underwent laparoscopic sterilization were taken as Control Group (Group B).

Following results were obtained.

In present study, the mean age for the study group

(Group A) was found to be 28.6 years with a range of 20- 40 years while for the control group (Group B) mean age was found to be 30.3 years with a range of 18-40 years. Both Groups were comparable as far as age is considered.

The incidence of chronic pelvic pain was found to be highest in Gravida 2 (41.81%) and lowest in infertility (1.87%). In control Group (B), maximum number of cases were Gravida 2 (45.45%). In current study also in Group A maximum number of patients were Educated till primary level (47.27%) followed by education till secondary level (41.81%). Similarly in group B also maximum number of patients were educated till primary level (45.45%) followed by education till secondary level (41.81%).

Incidence of history of previous Surgery was found to be 27.27% in Group A as compared to 38.18% in Group B. Maximum number of cases reported with Chronic pelvic pain lasting from 6-9 months (63.64%). Only one patient (1.22%) reported with Pain lasting from 22 months. Mean duration of chronic pelvic pain before laparoscopy was found to be 10.49 ± 7.46 months.

In current study Maximum number of cases (56.36%) had no other symptoms associated with Chronic pelvic pain. Associated vaginal discharge was present in 20.00% cases 14.54% cases had dysmenorrhea and 7.27% patients presented with dyspareunia. One patient (1.81%) had associated infertility. 36.36% cases with chronic pelvic pain had normal per vaginal findings. 14.54% cases each had fornix tenderness and retroverted uterus. In 12.72% cases endometriosis was suspected.

In Present study 60% Cases with chronic pelvic pain had normal USG findings. 12.72% women had free fluid in POD. Adnexal cyst was present in 7.27%, Hydrosalpinx was present in 5.45% cases. TO mass and fibroid could be visualized in 3.63% cases and cases of chronic pelvic pain endometriosis 18.18% was the most common pathological finding found on laparoscopy and 7.27% cases had Endometriosis in Group B. chronic pelvic inflammation found in 14.54% in Group A and 9.09% in Group B Adhesions were found in 9.09% cases in Group A and 7.27% cases in Group B. These patients Underwent adhesiolysis.

In our study we found that normal per vaginal findings were found in 72.72% cases of chronic pelvic pain whereas on laparoscopy normal finding were seen only in 25.45%. PID could be diagnosed in 14.54% cases which was confirmed by laparoscopy. Endometriosis could be diagnosed clinically only in 3.63% cases as compared to 18.18% cases diagnosed by laparoscopy.

Extraperitoneal gas insufflation occurred in 3.63% cases of Group A and 5.45% cases of Group B. Shoulder pain and wound infection occurred in one case each (1.81%) in Group A. No other complications occurred in both the groups.

In cases of chronic pelvic pain adhesiolysis was done in 9.09%, Endometriotic cyst removal was done in 9.09%. Ovarian Cystectomy was done in 7.27% and Hydrosalpinx removal was done in 5.45% cases.

Discussion

The present study was a prospective randomized controlled study conducted at department of Obstetrics and Gynecology, Saraswathi institute of medical sciences, hapur. The purpose of the study was to analyse the role of diagnostic laparoscopy in chronic pelvic pain. The study was carried out from 2018- 2019. Total 110 cases were enrolled. 55 cases who had been suffering from chronic pelvic pain for 6months (or more) were taken as study group (A). 55 cases without any symptoms who underwent laparoscopic sterilization were taken as control group (B). Different authors have different definitions of chronic Pelvic pain. Howard redefined the definition of chronic pelvic pain in 2001 as pain lasting for 6months or more.

Demographic Characteristics

Age

In present study, the mean age for the study group (Group A) was found to be 28.6 years with a range of 20- 40 years while for the control group (Group B) mean age was found to be 30.3 years with a range of 18- 40 years. Both Groups were comparable as far as age is considered. Demir et al (2011) conducted a study on 44 patients with chronic pelvic pain as Study Group and 31 patient who had laparoscopic tubal ligation as control Group.

Gravity

In present study the incidence of chronic pelvic pain was found to be highest in Gravida 2 (41.81%) and lowest in infertility (1.87%). In control Group (B), maximum number of cases were Gravida 2 (45.45%). In a study by Hebbler and Chawla (2005) in cases of chronic pelvic pain, Parity ranged between 0 to 8 and nine women were Nulliparous²². 86 patients of chronic pelvic pain was studied by Zubor (2000) in which mean parity was 1.6, ranging from 0 to 5.¹²

Education

In current study also in Group A maximum number of patients were Educated till primary level (47.27%) followed by education till secondary level (41.81%). Similarly in group B also maximum number of patients were educated till primary level (45.45%) followed by education till secondary level (41.81%).

Socioeconomic Status

In current study, the incidence of chronic pelvic pain in Group A was found to be highest in Middle class (58.18%) and lowest in lower class (12.72%). Similarly in Group B maximum number of cases were found to be in middle class (74.54%) and lowest in lower class (3.63%). There was no statistically significance difference between the two Groups as far as socioeconomic status was concerned.

History of Previous Surgery

In present study Incidence of history of previous Surgery was found to be 27.27% in Group A as compared to 38.18% in Group B. Hebbler et al (2005) studied 86 patients of chronic pelvic pain and found that nineteen patients had history of previous surgery and nine women had history of first trimester MTP. Eight had undergone D and E.²⁰

Duration of Pain

In Present study maximum number of cases reported with Chronic pelvic pain lasting from 6-9 months (63.64%). Only one patient (1.22%) reported with Pain lasting from 22 months. Mean duration of chronic pelvic pain before laparoscopy was found to be 10.49±7.46 months. In a study by Zupor (2000), 86 Patients with chronic pelvic pain were studied and average pain

duration was found to be 11.5 months.¹⁹

OTHER SYMPTOMS ASSOCIATED WITH CPP

The long duration pelvic pain symptomatology when subjected to proper clinical assessment, investigations and procedural interventions commonly concluded and correlated in the past with the clinical conditions like dysmenorrhea, dyspareunia, abnormal uterine bleeding, infertility, vaginal discharge, etc. In Study by Hebbert et al (2005) in cases of chronic pelvic pain, most patients presented with acyclic abdominal pain (79.1%) followed by congestive dysmenorrhea (26.7%).¹⁰

PER VAGINAL FINDINGS

In present study 36.36% cases with chronic pelvic pain had normal per vaginal findings. 14.54% cases each had fornix tenderness and retroverted uterus. In 12.72% cases endometriosis was suspected. In a Study by Hebbert (2005) 86 patient of chronic pelvic pain was studied. Pelvic tenderness was found to be most common (27.9%), followed by fornix fullness (15.1%). 61.6% women did not reveal any significant pathology.²¹

USG

Compared to laparoscopy ultrasound has a little or no value in diagnosing endometriosis but it can help in making or excluding the diagnosis of an ovarian endometrioma. The typical ultrasound features of an endometriotic ovarian cyst in premenopausal women were described as “ground glass -echogenicity of cyst fluid, one to four locules and no solid parts”. In Present study 60% Cases with chronic pelvic pain had normal USG findings. 12.72% women had free fluid in POD. Adnexal cyst was present in 7.27%, Hydrosalpinx was present in 5.45% cases. TO mass and fibroid could be visualized in 3.63% cases.

COMPARISON OF LAPAROSCOPY FINDING IN BOTH GROUP

In present study cases of chronic pelvic pain endometriosis 18.18% was the most common pathological finding found on laparoscopy and 7.27% cases had Endometriosis in Group B. chronic pelvic inflammation found in 14.54% in Group A and 9.09% in Group B Adhesions were found in 9.09% cases in Group A and 7.27% cases in Group B. These patients

Underwent adhesiolysis. Ovarian cyst was more common in Group B 14.54% as compared to Group A 7.27% in these cases cystectomy was done. Fibroid and TO mass found in 3.63% in Group A whereas in Group B. 63% cases had small fibroid and no TO mass found in Group B. Fibroid was medically managed whereas in TO mass antibiotic was given.

COMPARISON OF PER VAGINAL FINDINGS WITH LAPAROSCOPY

In our study we found that normal per vaginal findings were found in 72.72% cases of chronic pelvic pain whereas on laparoscopy normal finding were seen only in 25.45%. PID could be diagnosed in 14.54% cases which was confirmed by laparoscopy. Endometriosis could be diagnosed clinically only in 3.63% cases as compared to 18.18% cases diagnosed by laparoscopy. Hebbert & Chawla(2005) showed there was better correlation between abnormal preoperative pelvic examination and abnormal laparoscopic findings¹⁴.

COMPARISON OF USG FINDINGS WITH LAPAROSCOPY.

In our study Normal findings were seen in 60% cases of chronic pelvic pain on USG as compared to 25.14% cases on laparoscopy. Endometriosis could be diagnosed only in 7.27% cases on USG as compared to 18.18% cases on laparoscopy. Study by Zubor et al (2000) revealed pelvic organ pathology in 88.4% of patients and the most frequent finding was endometriosis (31.4%). Preoperative Ultrasonic examination with pelvic pathology findings performed in 36 patients and laparoscopy correlated with ultrasonographic findings in 31(81.6%)¹⁵.

COMPLICATIONS OF LAPAROSCOPY

In present study Extraperitoneal gas insufflation occurred in 3.63% cases of Group A and 5.45% cases of Group B. Shoulder pain and wound infection occurred in one case each (1.81%) in Group A. No other complications occurred in both the groups. Kang et al(2007) studied 3068 cases of chronic pelvic pain. In their study 85 complications associated with diagnostic laparoscopy including 3 cases of major complications.

Mortality

Vilos GA et al (2007) in their study concluded that bowel and visceral injuries from Veress needle insertion or trocar placement may occur. They may or may not be seen at the time of the injury. The delayed presentation contributes to the morbidity and mortality of bowel injuries. The incidence of bowel injury is between 0.04% and 0.5%.

Operative Procedures

In cases of chronic pelvic pain adhesiolysis was done in 9.09%, Endometriotic cyst removal was done in 9.09%. Ovarian Cystectomy was done in 7.27% and Hydrosalpinx removal was done in 5.45% cases. Demir F et al (2012) conducted a study of 44 patients with chronic pelvic pain out of which they performed adhesiolysis and ovarian cyst removal in 8 patients, endometrioma excision was done in nine cases and lastly salpingectomy and endometrioma cauterization was done in one patient each¹⁸

Conclusion

In this study we can conclude that laparoscopy is an excellent tool in evaluation of patients with pelvic pain, because diagnosis and often treatment can be accomplished in one sitting, without subjecting the patients to exploratory laparotomy. In the study population per vaginal finding found to be normal in majority of cases and endometriosis found to be the most common laparoscopic finding and almost undetectable on per vaginal examination.

Ethical Clearance- Taken from ethical committee of institute

Source of Funding- Self.

Conflict of Interest- Nil

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