

Original Article

Laparoscopy in chronic pelvic pain

Goswami Sebanti¹, Chakraborty Partha Sarathi², Datta Rekha³

¹ Assistant Professor, ² Professor & Head, ³ Associate Professor

Department of Obstetrics and Gynecology, Medical College and Hospitals, Kolkata

Abstract

Objectives : Chronic pelvic pain (CPP) is best defined as the non menstrual pelvic pain for at least six months, which is severe enough to cause functional disability and require medical or surgical treatment. A thorough clinical examination no doubt provides a gynecologist with considerable information but that is not sufficient in arriving at the diagnosis or pinpointing the cause of CPP in all cases. Ancillary aids like imaging studies and direct visualization of the pelvic organs by laparoscopy are often required. In this study we made an endeavor to find out the role of laparoscopy in the evaluation of CPP. **Methods :** The present study was conducted in the department of Obstetrics and Gynecology, Medical College and Hospital, Kolkata from January 2006 to December 2006. All the patients presented with the complaint of CPP. After history, physical examination, routine investigations and USG, 79 cases were subjected to laparoscopy. **Results:** Sensitivity and specificity of USG was found to be 69.56% and 100% respectively while for laparoscopy it was 98.46% and 100% respectively. Positive predictive value was 100% by both means but negative predictive value was significantly higher by laparoscopy i.e. 93.75% in marked contrast to USG (34.8%). **Conclusion:** Laparoscopy triumphs in detecting many abnormalities which clinical methods and USG sometimes fail to identify. This enforces the position of laparoscopy as a gold standard in the evaluation of CPP.

Key words: chronic pelvic pain, laparoscopy

Introduction

Chronic pelvic pain (CPP) is best defined as the non menstrual pelvic pain for at least six months, which is severe enough to cause functional disability and require medical or surgical treatment. The prevalence of CPP is 3.8% in the adult female population and is similar to that of asthma (3.7%) and higher than that of migraine

(2.1%)¹. The causes are often obscure and the patients of CPP are often depressed and distressed because of the significant disruption of their social, marital and occupational lives. Acute pain reflects fresh tissue damage and resolves as the tissue heals, but in chronic pain additional factors come into play and the pain persists long after the original tissue injury.

A thorough clinical examination no doubt provides a gynecologist with considerable information but that is not sufficient in arriving at the diagnosis or pinpointing the cause of CPP in all cases. Ancillary aids like imaging studies and direct visualization of the pelvic organs by laparoscopy are often required. In this study we made an endeavor to find out the role of laparoscopy in the evaluation of CPP.

Paper received on 23/04/2007 ; accepted on 21/07/2008

Correspondence :

Dr. Goswami Sebanti

317, New Raipur (Dabur Park)

Flat No. 1 B, Kolkata - 700084

Mobile : 09831135933

Email : sebantigoswami@yahoo.co.in

Methods

The present study was conducted in the department of Obstetrics and Gynecology, Medical College and Hospital Kolkata from January 2006 to December 2006. All the patients presented with the complaint of CPP. They were subjected to detailed history and clinical examination. While recording the history particular enquiry was made regarding associated symptoms like dysmenorrhea, dyspareunia, infertility, enteric symptoms, urologic symptoms and musculoskeletal symptoms. Routine investigations of blood, urine, stool and USG were done in all cases to rule out the nongynecological causes (relating to gastrointestinal, urinary and musculoskeletal system).

After recording history, clinical examination, routine investigations and USG were done. The cases with nongynecological causes were excluded from the study. That left us with 79 women. They were further subjected to laparoscopic evaluation.

Results

The mean duration of pain was 2.8 years (six months to eight years). The maximum number of patients belonged to the age group 31-40 years. Associated complaints like dysmenorrhea was found in 29 cases, dyspareunia in 11, infertility in five and menorrhagia in 17.

The commonest finding in laparoscopy was adhesions which were either due to chronic PID, endometriosis or were postsurgical.

Clinical findings were normal in 50 cases whereas USG did not detect any abnormality in 43 cases. Laparoscopy on the other hand suggested that only 15 cases did not have any positive finding.

Sensitivity and specificity of USG was found to be 69.56% and 100% respectively while for laparoscopy they were 98.46% and 100%. Positive predictive value was 100% by both means but negative predictive value was significantly higher by laparoscopy i.e. 93.75% in marked contrast to USG (34.8%). These findings suggest that inspite of similar specificity and positive predictive value, laparoscopy has got distinct advantage over USG in terms of sensitivity and negative predictive value indicating its superiority particularly for screening purpose. However some authorities still have reservation regarding utilization of an invasive procedure as screening method.

Table 1. Age and parity.

Age (Years)	No.	Parity	No.
20-30	26	Nullipara	11
31-40	35	Primipara	31
41-50	18	Multipara	37

Table 2. Findings by different methods of evaluation.

	Clinical	USG	Laparoscopy
Normal	50	43	15
Chronic PID	21	22	24
Adhesions	-	-	27
Endometriosis	3	5	11
Ovarian cyst	4	6	7
Myoma	1	3	2
Pelvic congestion	-	-	5
Bulky uterus (adenomyosis)	9	11	13

Discussion

Chronic pelvic pain (CPP) is a common condition in women and the incidences of consultation for CPP in general practice are similar to those for asthma and migraine. Population based studies in the UK and USA together with the data from UK hospital settings demonstrate a substantial impact of CPP on health related quality of life ².

In the present study the maximum number of women with CPP belonged to the age group 31-40 years. The duration and intensity of pain was found to be significantly increasing with age. This was similar to the findings of Kamilya ³.

Clinical examination did not reveal any abnormality in 50(63.2%) women. USG was normal in 43 (54.4%) women whereas on laparoscopy no visible pathology was detected only in 15 (18.9%) of the women. This signifies the benefit of direct visualization by laparoscopy. Howard ⁴ noticed that laparoscopic findings were negative in anywhere from 10-90% of the women with CPP. This indicates that we should recognize its diagnostic limitation & pitfalls also. No visible pathology was detected in 26% and 30% of cases in the studies by Kamilya et al ³ and Newham ⁵ respectively.

The commonest finding in our study was adhesions, which was identified as a cause in 27(34.1%) cases. The adhesions were of various etiologies. Many were due to chronic pelvic inflammatory disease (PID) while some were definitely postoperative or endometriotic in origin. Adhesions were the most frequent finding in the review by Mara et al (22.3%)⁶, Kresch et al (38%)⁷ and Newham (40%)⁵.

Another laparoscopic finding was PID as demonstrated by presence of tuboovarian mass, hydrosalpinx or pelvic adhesions. PID was noted in 24 (30.3%) cases in our study in comparison to 17.7% as reported by Mara et al ⁶.

While endometriosis was more common in the studies from other parts of the world, like 20.4% in the study by Mara et al ⁶, 33% by Cheong ² and 31.45% by Zubor et al ⁸, in our study it was only 13.9%.

Other findings like pelvic congestion, ovarian cyst and myoma were visible in a lesser percentage of cases. Some of the cases of pelvic congestion were associated with bulky uterus and point towards the existence of adenomyosis (which could not be established in the absence of hysterectomy and HP exam).

More than 40% of the laparoscopies are performed for the diagnosis of CPP. Although laparoscopic evaluation is sometimes considered a routine part of the evaluation, ideally the decision to perform a laparoscopy should be based on history, physical examination and findings of noninvasive tests. In our study 64(81.01%) women

with CPP had at least one diagnosis detectable by laparoscopy and it is common to attribute causality to this diagnosis. Laparoscopy triumphs in detecting many abnormalities which clinical methods and USG sometimes fail to identify. This enforces the position of laparoscopy as a gold standard in the evaluation of CPP.

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