Original Article

Role of Laparoscopy in the diagnosis of chronic pelvic pain

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Objective: To evaluate the cause of chronic pelvic pain in women with diagnostic laparoscopy.

Methodology: This Prospective descriptivestudy was conducted in Ghulam Mohammad Mahar Medical College Hospital and Hira Medical Centre, Sukkur, Pakistan, during a period of two years from May 2011 to April 2013. It included 63 patients presenting with chronic pelvic pain for more than six months duration. Women with chronic pelvic pain who had pelvic pathological lesions detected on clinical and or ultrasound examination were excluded. All were assessed by pelvic examination and pelvic ultrasonography and a C.T scan, if indicated. Patients were evaluated for other causes of pain like gastrointestinal, urological and musculoskeletal, before diagnostic laparoscopy was performed. Clinical, ultrasonographic and laparoscopic data was collected and analyzed using SPSS v. 14.

Results: Patients age ranged between 26-35 years. Most of these women were married (90.47%) and nulliparous (50.79%).On laparoscopic examination, pathological lesions were detected in 52(82.53%) patients while 11(17.46%) patients had negative laparoscopy and were re-evaluated for other causes of pain.Out of 52 positive laparoscopies, tuberculosis was found in 17(26.98%), pelvic inflammatory disease (PID)in 13(20.63%), endometriosis in 9(14.28%), pelvic adhesions in6 (9.52%), benign ovarian cysts in 5(7.93%) and polycystic ovarian disease in 2(3.17%) patients.

Conclusion: Laparoscopy is a useful diagnostic tool for women with chronic pelvic pain and can be used as a guideline for individualized treatment. (Rawal Med J 2013;38:397-400).

Keywords: Diagnostic laparoscopy, chronic pelvic pain, pelvic tuberculosis, endometriosis, P.I.D.

INTRODUCTION

Chronic pelvic pain is defined as a noncyclic constant or intermittent pain of greater than six months duration and not completely relieved by medical treatment. It is one of the commonest symptomatology in gynecology outpatient clinics. It accounts for 10% of office visits to gynecologists and general clinics.[1] Prevalencehas been reported as 3.8% in women aged 15-73 years.[2] In primary care practices, 39% of women complain of pelvic pain.[3] The cause of pain is not always obvious as no pathology is seen in 40-60% of cases.[4] Diagnostic laparoscopy is the gold standard to evaluate the underlying pathology and can establish a definitive diagnosis and modify the treatment without resorting to exploratory laparotomy.[5] The rationale of the study was to detect the underlying pathology of such a complex perplexing problem (CPP) in a day-to-day practice, with the help of laparoscopy, when ultrasound findings are normal and patient is not responding to medical therapy.

METHODOLOGY

It was a prospective descriptive study, conducted in the department of gynecology and surgeryGhulam Muhammad Mahar Medical College Hospital and Hira Medical Centre Sukkur, Pakistan, during a period of two years from May 2011 to April 2013.A total of 63 patients were selected for diagnostic laparoscopy, presenting with chronic pelvic pain for more than six months duration fromoutpatient department(OPD) of surgery, gynecology and medicine. All the patients with no obvious organic pelvic pathology on clinical or ultrasound examination and not responding to medical treatment were included in the study. Patients with previous hysterectomy, previous multiple

surgeries and with organic pelvic pathological lesions, orthopedic injury, musculoskeletal and psychological causes detected clinically and or radiologically were excluded from the study. Informed written consent was taken from all patients.

The demographic data, clinical examination, routine investigations and fitness for general anesthesia were recorded. Diagnostic laparoscopy was performed with standard technique by infra-umbilical 5mm port for 30^0 telescope and another one or two 5mm ipsilateral working ports, as required. Biopsy was taken in majority of the cases. Tuberculosis was confirmed on histopathology and anti-tuberculosis therapy (ATT) started. Pelvic collection/ pus was drained and irrigation done with normal saline. Pelvic adhesions distorting the tubes were treated by sharp dissection. Adhesiolysis was also done for bowel adhesions. Cyst wall puncture, de-roofing and or excision of benign ovarian cysts were done. Drilling was done in patients with polycystic ovarian disease. In six patients, hysterectomy was carried out for persistent pelvic pain with P.I.D six months after laparoscopy. The data was collected and analysed on SPSS version 14.

RESULTS

Age of patients ranged from 26-35 years. 90.47% were married and 50.79 % were nulliparous (Table 1). Pain was dull and sharp in majority of the patients (42.85%). Other commonly associated symptoms were infertility in 35 (55.55%), dyspareunia in 34(53.96%), dysmenorrhea in 33 (52.38%) and backache in 32 (50.79%) patients (Table 2).

Table 1. Socio-demographic features of the study group (n=63).

Demographic features	Numbers	Percentage
Age group(years)		
a. 16-25	03	(4.76%)
b. 26-35	40	(63.49)
c. 36-45	20	(31.7%)
Marital Status		
a. Married	57	(90.47%)
b. Unmarried	06	(9.52%)
Parity		
a. Nulliparous	32	(50.79%)
b. Multiparous	31	(49.2%)

Pathological lesions were detected in 52 (82.53%) patients while 11(17.46%) patients had negative laparoscopy. Out of 52 positive laparoscopies, tuberculosis and pelvic inflammatory disease were commonest diagnosis (Table 3).

Table 2. Symptomatology of the study group (n=63).

Clinical presentation	Numbers	Percentage
Type of pain		
a. Dull ache	13	20.63%
b. Dull and sharp	29	46.03
c. Severe episodic pain	11	17.46%
d. Non-specified	10	15.87%
Infertility		
a. Present	35	55.55%
b. Absent	28	44.44%
Dyspareunia		
a. Absent	34	53.96%
b. Present	29	46.03%
Dysmenorrhea		
a. Present	33	52.38%
b. Absent	30	47.61%
Backache		
a. Absent	32	50.79%
b. Present	31	49.2%

Biopsy confirmed intestinal and genital tuberculosis in 17(26.98%) patients. Biopsy also confirmed endometriosis in 9(14.28%) patients. Adhesiolysis was done for bowel adhesions and distorted fallopian tube adhesions, successfully with minimal bleeding. No iatrogenic gut or other visceral injury occurred.

Table 3.Laparoscopic findings (n=63).

Laparoscopic findings	umber	Percentage
Normal	11	17.46%
Abnormal	52	82.53%
i. Tuberculosis	17	26.98%
ii. Ovarian Pathology	05	7.93%
iii. Pelvic inflammatory disease	13 09	20.63% 14.28%
iv. Endometriosis	06	9.52%
v. Pelvic adhesion	02	3.17%
vi. Polycystic ovarian disease		

Two (3.17%) patients developed post-operative collection, which was drained by ultrasound-guided aspiration. Deep endometrioses were treated by electrosurgical excision successfully. Benign ovarian cysts were removed successfully and drilling was done in polycystic ovarian syndrome with no complications. Post-operative recovery was

uneventful in all patients. Follow-up was done in 90% of cases up to 1 year, while 10% patients were lost to follow up. No morbidity or mortality occurred in the study group.

DISCUSSION

Laparoscopy is a useful diagnostic tool to detect or exclude underlying pathology especially when the imaging modalities are not helpful.[6,7]Chronic pelvic pain has a myriad of possible causes, mostly with very little correlation between clinical evidence and the extent of disease and the quality, quantity or appearance of pain. Patients with chronic pelvic pain have often visited several physicians, used alternative methods of care and may have used narcotic analgesics.Chronic pelvic pain sometimes can be thought of as a puzzle that requires careful evaluation.[8] Laparoscopy often helps to establish the cause of pelvic pain and in many cases can be used to treat the cause as well.[9] Studies have shown that 40% of laparoscopies are performed for the diagnosis of chronic pelvic pain.[10]

In our study, abnormal laparoscopic findings were observed in 82.53% patients whereas 17.46% patients had normal examination. Kontoravdiset al[11]laparoscopically assessed 1629 patients with chronic pelvic pain and detected abnormal pathology in 76%. Mara et al[12] performed 480 laparoscopies in patients with chronic pelvic pain and pathology was detected in 82.3%. Swanton et al[13] did laparoscopy with conscious pain mapping in 39 women and identified the cause of pain in 35(90%). In our study, the frequent pathological conditions observed were tuberculosis (26.98%), PID (20.63%), endometriosis (14.28%), pelvic adhesions (9.52%) and benign ovarian cysts (7.93%).

The diagnosis of peritoneal tuberculosis could be a demanding task for even an experienced physician because of non-specific symptoms.[14]According to the WHO global tuberculosis control 2009, Pakistan ranks 8th on the list of 22 high tuberculosis burden countries.[15]Laparoscopy is an effective tool for the diagnosis of pelvic tuberculosis. It can reveal peritubal adhesions, tubercles on the tubes, gut serosa, omentum and peritoneum, small tubo-ovarian masses and hydrosalpinx that cannot be detected clinically or on ultrasound.

In this study, PID was diagnosed in 20.63% patients, which is comparatively less than other western studies where PID is more common.[16]Endometriosis is a growing health care problem all over the world.[17] Pelvic endometriosis is the most common laparoscopic finding in patients with chronic pelvic pain.[18,19-22] The prevalence of endometriosis that was detected in laparoscopy is 20.4-22.3%.[12,23] Some studies report confirmation of suspected endometriosis during diagnostic laparoscopy in 78-84% of patients.[24] However, in the present study endometriosis was the third most common cause of chronic pelvic pain, found in 14.28% patients. The incidence of endometriosis is very low in someparts of Nepal (4.7%),[25]which may be due to early child bearing and prolonged breast feeding. Pelvic adhesions were observed in 9.52% cases in this study. Drozgyik et al on laparoscopy on 1061 patients with chronic pelvic pain reported 32.5% patients with pelvic adhesions.[23] Ovarian cyst rarely causes chronic pelvic pain, only 7.93% cases were found in the present study.

Thus, the use of laparoscopy allows the detection of potentially treatable pathology not detected or detectable by other types of evaluation such as ultrasonography, imaging studies, endoscopy and other laboratory studies.[26] Diagnostic laparoscopy has an influence in discarding unnecessary medication and introducing therapeutic plans.[18,27]

CONCLUSION

Laparoscopy has a vital role in the diagnosis and management of patients with chronic pelvic pain. In properly selected patients, it resulted in significant symptomatic improvement.

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