

Comparison Between Clinical Diagnosis and Laparoscopic Findings of Chronic Pelvic Pain in an Experimental Study

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ABSTRACT

Objective: To describe the various causes of chronic pelvic pain as observed on laparoscopy and to compare the clinical diagnosis with the laparoscopic diagnosis.

Study Design: It was a descriptive study conducted in Department of Obstetrics and Gynaecology, Hussain Memorial Hospital, Multan Road Lahore from December 2014-November 2015.

Materials and Methods: Fifty patients who presented in gynaecology outpatient clinic with non-cyclic lower abdominal pain and fulfilling the inclusion criteria were selected for study irrespective of age and parity. All laparoscopies were performed on day case basis. After informed consent, the detailed history was taken from the patients. Physical examination was done regarding chronic pelvic pain. A clinical diagnosis was established. Diagnostic laparoscopy was performed later on these patients. The different causes of chronic pelvic pain were described as observed on laparoscopy. The comparison was made with clinical diagnosis.

Results: Among the fifty patients in whom diagnostic laparoscopy for chronic pelvic pain was performed, clinical diagnosis of endometriosis was made in 25 cases (50%) but was confirmed laparoscopically in 22 cases (44%). pelvic inflammatory disease was suspected as the cause of chronic pelvic pain clinically in 18 cases (36%) but confirmed in 15 (30%). In these patients, multiple adhesions were found. Adhesions due to previous surgery were suspected clinically in 1 case (2%) while it was found laparoscopically in 2 cases (4%). 4 cases (8%) were suspected to have an ovarian cyst but laparoscopically it was seen in 5 cases (10%). Anomalies of the genital tract were diagnosed clinically in 2 cases (4%) but confirmed in only 1 case (2%) laparoscopically.

Conclusions: Chronic pelvic pain is a common problem of women especially of reproductive age group. Thorough clinical evaluation should be undertaken to identify the patients needing a laparoscopy. Laparoscopy performed as a diagnostic tool will help provide patients, treatment without delay. It also helps to remove the disease as much as possible. This approach avoids the development of complications due to advance disease process. Proper clinical evaluation including careful history and detailed physical examination avoids unnecessary laparoscopies as well.

Key Words: Chronic pelvic pain, diagnostic laparoscopy, endometriosis, pelvic inflammatory disease.

Introduction

Chronic pelvic pain is described as non-cyclical, constant or intermittent, pain in the lower abdomen lasting for at least six months duration which is severe enough to cause functional disability¹ and is not completely relieved by medical treatment.² It may or may not be associated with menstrual cycle or intercourse¹ It is a common debilitating condition affecting women presenting in gynaecological outpatient clinics. It accounts for substantial personal suffering and health care expenditure for diagnosis and treatment.³ The source of chronic pelvic pain may be either gynaecological or non gynaecological. The usual gynaecological causes of chronic pelvic pain are⁴, endometriosis, pelvic adhesions due to inflammation or previous surgery, uterine fibroids, pelvic congestion syndrome, adenomyosis, ovarian cyst and residual ovary syndrome. The non gynaecological causes of chronic pelvic pain may be⁴, gastrointestinal, urological, musculoskeletal and psychological.

Chronic pelvic pain is a poorly understood condition because pain is a very complex phenomenon. It cannot be described on the basis of any single pathway. The separation of physical and psychological causes of chronic pelvic pain is not always possible.¹

Pelvic pain is a distressing symptom especially when it becomes chronic. This problem requires the establishment of specific diagnosis especially in young patients so that most appropriate management could be offered. A multidisciplinary approach is required in this regard. The best approach towards the patients with chronic pelvic pain is to look for the cause in both somatic and psychological systems of the body. It will help to decide whether the cause is organic or non-organic.⁵ Stressful events of life, psychiatric and neuroendocrine problems have a major contribution to persistent pelvic pain. Chronic pelvic pain itself produces distress and depression in women's life.⁵

The laparoscope has long been used by gynaecologists for the diagnosis of pelvic pathologies. Laparoscopy is the gold standard for evaluation of chronic pelvic pain.^{6,7} Laparoscopy is a surgical procedure that involves placement of a thin telescope through an incision in the navel in order to see inside abdomen and pelvis. The use of laparoscope has several clear advantages. The modern laparoscope provides closeups and magnified views so that exact pathology can be diagnosed. In recent years, pelvic pain occupies one of the leading positions as an indication for laparoscopy. It determines the cause of chronic pelvic pain before medical treatment is started.⁸

Rationale: Chronic pelvic pain is one of the most frequent causes for attendance at outpatients clinics. Diagnostic laparoscopy is one of the investigating methods to detect the cause of chronic pelvic pain.⁹

Methodology

This was an experimental study, conducted in the department of obstetrics and gynaecology, Hussain Memorial Hospital, Multan Road, Lahore, from December 2014-November 2015. 50 Patients selected from the outpatient clinic by convenient sampling were admitted inward. Study performa was designed. All patients with chronic lower abdominal pain lasting for more than 6 months presenting in the outpatient department were included in the study. The patients who were excluded from study were those having pelvic pain for less than 6 months in whom laparoscopy was contraindicated and in whom general condition of the patient was unstable. After informed consent, detailed history and thorough physical examination were done. After reviewing all findings and establishing clinical diagnosis, diagnostic laparoscopy was done. Findings of diagnostic laparoscopy were noted and comparison was made with clinical diagnosis. The whole data collected was analyzed by using SPSS version 20 and results were formulated.

Results

Clinical diagnosis established in patients were as described in Table 1.

Table I: Clinical Diagnosis of Chronic Pelvic Pain

Causes	No. of patients	Percentage
Endometriosis	25	50
P.I.D	18	36
Ovarian cyst	4	8
Post-surgical adhesions	1	2
Uterine anomalies	2	4

The results of laparoscopy are described in TABLE II.

Table II: Laparoscopic Diagnosis of Chronic Pelvic Pain

Causes	No. of patients	Percentages
Endometriosis	22	44
P.I.D	15	30
Ovarian cyst	5	10
Post surgical adhesions	2	4
Uterine anomalies	1	2
Normal	5	10

The sensitivity of laparoscopy for endometriosis was 44% while that for P.I.D was 36%, for ovarian cyst 10% ,for post-surgical adhesions 4%, for uterine anomalies 2% and for those found without disease, it was 10%.

The specificity of laparoscopy was 88% for endometriosis, 83% for PID, 100% for ovarian cyst and post-surgical adhesions, 50% for uterine anomalies and 100% for normal cases.

Table III showed different complications while performing a diagnostic laparoscopy.

Table III: Complications

Complication	No. of patients	Percentage
Hospitalization>24 hours	5	10
Re- admission	1	2
Wound infection	4	8
Haemorrhage	2	4
Unintended laparotomy	NIL	NIL
Organ injury	NIL	NIL
Vessel or nerve injury	NIL	NIL
Pneumoperitoneum	NIL	NIL

Discussion

Laparoscopy is an effective procedure that permits direct access to the abdominal and pelvic cavity. It helps in confirmation of the diagnosis of several pathologies. The effectiveness of laparoscopy as a diagnostic tool in patients with chronic pelvic pain depends on proper selection of patients. Detailed history and thorough physical examination are required to reach a proper clinical diagnosis. If laparoscopy is done without proper selection of patients and required workup, most cases will end up in negative laparoscopies. The risk of complications will also increase due to undue laparoscopies. Laparoscopy is the gold standard test to confirm the cause of chronic pelvic pain. The aim of this study was to describe the various causes of chronic pelvic pain as observed on laparoscopy and to compare the clinical diagnosis with the laparoscopic diagnosis. 50 patients were selected conveniently and the diagnosis was made both clinically and laparoscopically. Endometriosis was suspected clinically as a cause of chronic pelvic pain in 50% cases but confirmed laparoscopically in 44% cases.

The results are comparable to the study conducted by Howard, F.M at University of Rochester School of

Medicine and Dentistry, Rochester General Hospital, New YORK, U.S.A in 2000 which showed endometriosis in 37% cases as the cause of chronic pelvic pain.⁹ The results are also comparable to the study conducted by Razia Iftikhar in 2008 in Karachi, Pakistan which showed endometriosis as a cause of chronic pelvic pain in 56% cases.¹⁰ The results are not comparable to the study conducted by Baloch S, Khaskheli MN, Malik AM in 2013 in Pakistan, which showed 12.9% cases are suffering from endometriosis¹¹ This difference is probably due to the selection of specific age and parity patients in their study.

P.I.D was suspected clinically in 36% cases as cause of chronic pelvic pain but confirmed laparoscopically in 30% cases. The results are comparable to the study conducted by Sharma D, Dahiya K, Duhan N, Bansal R in 2011, which showed pelvic adhesions as cause of chronic pelvic pain in 40% cases.¹² The results are also comparable to the study conducted by Jyotsana Lamba ,Surinder Kumar, Shashi Gupta. Neeru Verma in S.M.G.S hospital, Govt. medical college Jammu, in 2012 which showed that 26.92% cases have P.I.D as cause of chronic pelvic pain.¹³

Pelvic adhesions after surgery were suspected clinically in 2% cases but confirmed laparoscopically in 4% cases. The results are not comparable to the study conducted by Carter J.E at university of California, Irvine College of Medicine, U.S.A in 1999 which showed pelvic adhesions as cause of chronic pelvic pain in 8.5% cases.¹⁴ This is probably because it also includes the adhesions due to pelvic infections as cause of chronic pelvic pain.

In my study, 8% cases were clinically found to have an ovarian cyst but confirmed laparoscopically in 10% cases. The results are comparable to the study conducted by Samina Rafique et al at Ghulam Muhammad Mahar medical college Sukkur in 2013 which showed 7.93% patients of a chronic pelvic pain having an ovarian cyst.¹⁵ Another study conducted by Razia Iftikhar in 2008 in Karachi ,Pakistan showed 6.6% cases of chronic pelvic pain to suffer from ovarian cyst.¹⁰

Uterine anomalies were suspected in 4% cases but confirmed laparoscopically in 2% cases. The results are comparable to the study conducted by Grazia-Porpora M and Gomel V at second institute of obstetrics and gynaecology, university La Sapienza, Rome, Italy in 1997 which showed uterine anomalies as cause of chronic pelvic pain in less than 1% cases.¹⁶

10% patients who were suspected to have pelvic pathologies were found to have no disease on

laparoscopy. The results are comparable to the study conducted by Carter J.E at university of California, Irvine College of Medicine, U.S.A in 1999 which showed 17% cases to have no pelvic pathology on laparoscopy.⁴

The results are not comparable to the study conducted by Howard F.M at University of Rochester School of Medicine and Dentistry, Rochester General Hospital, New York, U.S.A in June 2000 which showed 65% laparoscopies done for chronic pelvic pain to found a cause while 35% were negative laparoscopies.⁹

Conclusion

It is concluded from above discussion that diagnostic laparoscopy is an effective procedure to establish the cause of chronic pelvic pain. However, only proper selection of the patients after taking detailed history and thorough physical examination could result in achievement of desired results.

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