

Frequency of Laparoscopic findings in Chronic Non-specific Abdominal Pain Patients

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ABSTRACT

Objective: To determine the frequency of laparoscopic findings in chronic nonspecific abdominal pain patients during diagnostic laparoscopy in our set-up.

Study Design: A Descriptive Observational study.

Place and Duration: Department of Surgery, Fauji Foundation Hospital, Rawalpindi from 1st April, 2017 to 31st March 2018.

Methodology: Total 102 patients of both sexes undergoing diagnostic laparoscopy due to chronic non-specific abdominal pain were studied. Other than relevant demographic findings, all findings during procedure considered as a cause of chronic abdominal pain or not observed were recorded and analyzed.

Results: Patients mean age was 31.78±12.42 years and among total of 102 patients, 21.6% male and 78.4% female patients. The commonest laparoscopic findings noted in chronic nonspecific abdominal pain patients, were peritoneal tuberculosis (40.19%), intra-abdominal adhesions (29.41%), pelvic inflammatory disease (11.76%) and chronic appendicitis (8.82%).

Conclusion: Diagnostic laparoscopy is a good diagnostic investigation to be considered for the assessment of chronic nonspecific abdominal.

Keywords: Chronic nonspecific abdominal pain, Diagnostic laparoscopy, Chronic appendicitis, Peritoneal tuberculosis, Intra-abdominal adhesions, Pelvic inflammatory disease.

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INTRODUCTION

Chronic nonspecific abdominal pain is still a diagnostic dilemma for surgeons in clinical practice. Chronic nonspecific abdominal pain is defined as intermittent or continuous pain lasting for more than 3 months with no definitive diagnosis¹. Common

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diseases like reproductive, gastrointestinal, urological, psychiatric etc. may be the etiology of chronic abdominal pain. These patients commonly present to physicians' clinics where their non-invasive investigations like laboratory tests, US Scan, CT Scan etc are carried out². About 40 % of these patients failed to have definitive etiology of their pain³. Chronic abdominal pain has more psychological effect on patients than a physical effect. This condition takes patients into depressive state and also affects quality of life⁴. In children chronic nonspecific abdominal pain is common cause of recurrent hospital admissions⁵. Surgical consultation is usually carried late when other modalities fails to relief patients pain. Chronic nonspecific abdominal pain sometimes leads repeated laparotomies in patients². Minimal invasive surgical techniques especially laparoscopy has now become very helpful in solving the dilemma of chronic nonspecific abdominal pain. During Laparoscopy surgeon makes visual assessment of abdominal cavity, diagnose etiology accurately and also treat the etiology in maximum number of patients in same procedure³. Laparoscopy is very safe and less traumatic tool for chronic abdominal pain patients. Laparoscopy is also best diagnostic modality in gynecological conditions and children because of highest yield and greater economic advantages^{3,5}.

In past some surgeons don't favor diagnostic laparoscopy and management after this procedure like adhenolysis etc in chronic abdominal pain⁴. But with further advancement in techniques and technology, it is expected that laparoscopy might become

main diagnostic tool for chronic nonspecific abdominal pain in future and helping in definitive management of patients⁶. We have conducted this study with an objective to assess the efficacy of laparoscopy in chronic nonspecific abdominal pain diagnosis.

METHODOLOGY

This A Descriptive Observational study was conducted in Surgery Department of Fauji Foundation Hospital Rawalpindi from 1st April 2017 to 31st March 2018. All patients who fulfilled the inclusion criteria were included in study after approval from Hospital Ethical Committee. Patients with age range from 12 to 65 years of both genders having chronic nonspecific abdominal pain with no definitive diagnosis after laboratory and radiological investigations were included in study. Patients with coagulopathy, acute abdominal pathology, having previous multiple surgeries, not willing for procedure and those having a diagnosis of chronic abdominal pain were excluded from study. Patients were admitted through surgical emergency and surgical outpatient department. On basis of thorough clinical history, examination, inconclusive investigations including laboratory and radiological studies like Ultrasound Scan, CT scan abdomen and pelvis etc, patients were labeled as cases of chronic nonspecific abdominal pain. Diagnostic laparoscopy was planned by senior member of team and informed written consent was taken from the patients. A standard three-trocar technique was used (10-mm optic via umbilical trocar and two 5-mm lateral trocars at mid clavicular and anterior axillary line) for diagnostic laparoscopic procedure. A fourth 5-mm trocar was used where deemed necessary. All abdominal quadrant including pelvis and abdominal viscera were thoroughly scrutinized for any pathology most likely a cause of chronic abdomen along with other incidental findings observed during procedure. All findings were recorded on proforma for further analysis.

Data Analysis: Data was analyzed using SPSS version 17. Mean and standard deviation were calculated for quantitative data i.e. age, duration of pain. Frequency and percentages were calculated for qualitative data i.e. gender and post laparoscopic diagnosis. Chi square test was applied on qualitative variables.

RESULTS

A total of 102 patients were studied and majority of patients were female (n= 80, 78.4%) as compared to male (n=22,21.6%). The mean age of the patients was 31.78+12.42 with ranges from 12 years to 65 years. Mean duration of symptoms in patients was 7.10+3.00 with ranges from 03 months to 12 months, as shown in Table-I.

Frequency of different laparoscopic findings in patients were shown in Table-II. The commonest finding was peritoneal tuberculosis observed in 41 (40.19%) patients, followed by intra-abdominal adhesions (n=30, 29.41%), pelvic inflammatory disease (n=12, 11.76%). Whereas in only 09 (8.82%) patients' chronic appendicitis was found to be most likely cause of chronic abdomen. No specific findings as a cause of chronic abdomen

were observed in 10 (9.80%) patients.

Table-I: Descriptive statistics of Age (years) and Duration (months) of pain of patients (N= 102).

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Age (years)	102	12	65	31.78	12.42
Duration (months) of symptoms	102	03	12	7.10	3.00

Table-II: Frequency of diagnostic Laparoscopy findings (N=102)

Post Laparoscopy Diagnosis		Frequency (n)	Percentage
Post Laparoscopy Diagnosis	Adhesions	30	29.41%
	Chronic Appendicitis	09	8.82%
	Peritoneal Tuberculosis	41	40.19%
	Pelvic Inflammatory Disease	12	11.76%
	No findings	10	9.80%
Total		102	100.0

DISCUSSION

Chronic abdominal pain is described as pain abdomen which occurs intermittently or continuously for a minimum period of three months and this pain disturbs the daily life of patients. Sometimes it becomes difficult and frustrating for physicians to diagnose and treat patients of chronic abdominal pain. When there is no cause identified this pain is called chronic nonspecific abdominal pain⁷. Minimal invasive surgery has gained acceptance world widely nowadays. Laparoscopy is a good diagnostic tool which helps in achieving diagnosis in chronic nonspecific abdominal pain patients. Often it is underutilized considering it as an invasive procedure. During diagnostic laparoscopy surgeons directly sees the intra-abdominal organs and successfully make a diagnosis of pathology in chronic nonspecific abdominal pain patients⁸.

In our study no of total patients were 102 and mean age of patients was 31.78+12.42 years as shown in Table. No. 01, which is nearly same as found Azeem et al i.e. 30 years with SD 1.26 in his study⁹. Among 102 patients of chronic nonspecific abdominal pain in our study, 21.6% patients were male and 78.4% patients were females. More number of females is because Fauji Foundation Hospital is a welfare hospital which mainly treats the families of retired arm personals. According to Naniwadekar and colleagues there were 52% females and 48% males who underwent diagnostic laparoscopy for chronic abdominal pain¹⁰. Mean duration of symptoms before laparoscopy in patients was 7.10+3.00 with ranges from 03 months to 12 months in our study, as compared to Sayed et al study in which patients presented with mean duration of pain being 8.6 ± 4.2 months¹¹. Literature review shows that laparoscopy is very helpful in making the diagnosis in chronic nonspecific abdominal pain patients. This was showed in study by Parsad et al who reported 92% successful diagnostic laparoscopies². Jasmine et al in his study reported 63 to 94% success in making diagnosis during laparoscopy¹². In present study 90.19% patients had a diagnosis made on laparoscopy which validates the routinely use of diagnostic laparoscopy in chronic nonspecific abdominal pain

patients. Our study shows frequency of laparoscopic findings in chronic nonspecific abdominal pain patients were 30 (29.41%) patients were diagnosed as intra-abdominal adhesions, 09 (8.82%) patients of chronic appendicitis, 41(40.19%) patients of peritoneal tuberculosis whereas there were 12 (11.76%) patients were diagnosed pelvic inflammatory disease cases, while in Sharma and colleagues study most common laparoscopic findings were adhesions(77.8%) and frequencies of other pathologies were appendiceal pathology(11.1%), hernia(2.2%), gall bladder pathology (2.2%) and mesenteric lymphadenopathy(2.2%)¹³. In another study by Rao et al most frequent laparoscopic findings detected were abdominal adhesions (30%), followed by pelvic inflammatory disease (25%), abdominal tuberculosis (12%), chronic appendicitis (8%), mesenteric lymphadenitis (5%) and diverticulosis (2%)¹⁴.

In present study laparoscopy turns out a very useful and cost effective diagnostic tool in cases of chronic nonspecific abdominal pain patients. Surgeon can directly see the intra-abdominal and pelvic organs, make a diagnosis and take tissues, fluids for biopsies and cultures. At the same procedure surgeons can therapeutically intervene and correct the pathology in maximum number of cases. In our study abdominal tuberculosis, intra-abdominal adhesions, chronic appendicitis and chronic pelvic pain are common problems in which diagnostic laparoscopy is very helpful. These findings are supported by Abdullah et al, Rao et al and Hussain et al in their studies^{3,14,15}. Our study also support that in near future the diagnostic laparoscopy, most likely is going to replace the imaging techniques in majority of scenarios for diagnosis of chronic nonspecific abdominal pain patients. The advantage is that it can be used both diagnostically and therapeutically at same procedure.

CONCLUSION

Diagnostic laparoscopy is a good diagnostic investigation to be considered for the assessment of chronic nonspecific abdominal.

AUTHOR'S CONTRIBUTION

Qayyum S: Conceived idea, Data collection.

Taimur M: Manuscript writing, Data analysis.

Samiullah: Manuscript writing, Data collection

Imran M: Designed methodology, Data collection

Noor M: Literature search, Bibliography

Khan MF: Manuscript writing, Proof reading of manuscript.

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