



## **EFFICACY OF LAPAROSCOPY IN CHRONIC ABDOMINAL PAIN.**

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### **Abstract**

chronic abdominal pain is a unique problem faced by every physician .chronic abdominal pain is defined as pain exceeding more than 3 months duration.,in era of early diagnosis and treatment of chronic abdominal pain has significant impact on physicians ability to diagnose and treatment,chronic abdominal pain .it is the 3<sup>rd</sup> most common complaint of individual enrolled in any large healthcare system..chronic abdominal pain cases undergo multiple investigations in multiple medical centre but pain remains undiagnosed ,a single centric observational prospective study was done in 63 patients at l.t.m.mc and l.t.m.g.hospital ,sion, mumbai .chronic abdominal pain patients whose limit of non invasive testing was reached and not responding to medical treatment were projected to diagnostic and therapeutic laparoscopy.in this study efficacy of laparoscopic surgery had significant role in pin pointing pathology of the chronic abdominal pain , laparoscopy also proved to be effective in therapeutic accuracy and avoided unneccesary laparotomy.it was concluded that diagnostic laparoscopy has definitive role in management of chronic abdominal pain,had very high efficacy, should be considered as important investigating tool in armamentarium of all surgeons.

**Keywords:** laparoscopy,chronic abdominal pain,diagnostic scopy.



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### **Introduction:**

Chronic abdominal pain can be defined as recurrent abdominal pain for more than 3 months.It is associated with poor quality of life<sup>(1)</sup>.In chronic abdominal pain cases undergoes numerous diagnostic studies,but there pain remains as undiagnosed entity even after investigation<sup>(2-5)</sup>.Chronic abdominal pain is considered 'bad'pain,as it is refractive to common analgesic agents,nsaid.etiology is due to damaged nerves,nerve

endings, ischemia. Chronic abdominal pain due to organic causes such as –adhesions, biliary cause, appendicular pathology, malignancy. Functional causes –irritable bowel disease, motility disorder, abdominal wall spasmodic pain mistaken as visceral pain. Almost all chronic abdominal pain are subjected to multiple investigation but did not reach a diagnosis.. So evolution of laparoscopy came in role. Laparoscopy means greek lapro is flank, the skopin is to examine. Laparoscopy is now important intermediate tool for cases refusing for exploratory laparotomy. Laparoscopy can be used as therapeutic and diagnostic tool for chronic abdominal pain. Diagnostic laparoscopy <sup>(6)</sup> helps in assessment of chronic abdominal pain by evaluating liver disease, evaluation of unknown ascites, staging malignancy, fever of unknown origin, second look surgery, abdominal penetrating injuries in trauma. Therapeutic laparoscopy is indicated in appendectomy, gall bladder surgery, lysis of adhesion, pelviscopy, in hernia cases, malignancy depending on experience of surgeon. First laparoscopy was performed in 1901, on dog by George Kellig of Dresden <sup>(7)</sup>. This is a single centric prospective observational study of 63 cases in Lokmanya Tilak Medical College, Sion Mumbai from Dec 2013 - Nov 2015. Cases included - age >18 yrs having chronic abdominal pain not responding to treatment, willing to participate, cases excluded from the study - acute cases, obstruction, critically ill, decompensated cardiopulmonary failure, pregnant, diaphragmatic hernia, peritonitis. The cases of chronic abdominal pain were subjected to all investigation - Hb, cbc, lft, rft, chest x ray, if required ct scan. As a protocol all cases detail history of medical and surgical intervention was recorded on proforma. All cases were subjected to laparoscopy and as a standard general anaesthesia was given. Pneumoperitoneum was created with Veress needle, 2 to 3 trocars were introduced in abdomen for manipulation of organs and biopsy and intervention. 0/30 degree laparoscope was used to evaluate abdomen, as per intra operative finding, therapeutic or diagnostic method was implied, port closure was done by Vicryl 2-0, skin by Ethilon 2-0 as a standard for all 63 cases.

**Table. Duration of pain**

DURATION (IN MONTHS)	PATIENTS	PERCENTAGE
3 TO 12	46	73.01
12 -18	11	17.46
18-36	4	6.34
>36	2	3.17

**Location of pain**

SITE OF PAIN		PATIENTS	PERCENTAGE
RIGHT	LOWER	43	65.2
QUADRANT			
PERI UMBILICAL		7	10.6
DIFFUSE		6	9.1
EPIGASTRIUM		5	7.6
RIGHT	UPPER	4	6.1
QUADRANT			
LEFT	UPPER	2	3
QUADRANT			

**Findings in diagnostic laparoscopy**

DIAGNOSTIC FINDING	PATIENTS	PERCENTAGE
CHRONIC APPENDICULAR PATHOLOGY	37	56.1
ADHESION	14	21.2
ABDOMINAL KOCH MESENTRIC LYMPHADENOPATHY	13	19.7
OVARIAN CYST	12	18.2
NORMAL FINDING	5	7.6
MECKEL'S DIVERTICULUM	4	6.1
COLONIC DIVERTICULUM	2	3
HERNIA	2	3
CHRONIC GALL BLADDER PATHOLOGY	1	1.5
	1	1.5

**Therapeutic laparoscopic procedures**

PROCEDURES	PATIENTS	PERCENTAGE
LAP APPENDECTOMY	37	56.1
ADHESIOLYSIS	11	16.7
RESECTION	2	3
ANASTOMOSIS		
OVARIAN CYST ASPIRATION	2	3
CHOLECYSTECTOMY	1	1.5

**Discussion :**

This study of 63 cases of chronic abdominal pain only 4 cases were undiagnosed .

Pain duration –

In this study ,duration of pain was from 3 months to 5 yrs .In study of Raymond et al <sup>(8)</sup>70 cases ,duration of pain ranged from 5 months to 7 yrs.In study of Gouda m el -labban and Emad N Hokkam <sup>(9)</sup> involving 30 cases ,duration was from 3 -15 months .raymond and et al and this study was nearly same.

**Comparison of most common finding of laparoscopy**

STUDY	FINDINGS OF CHRONIC APPENDICITES (%)
KINNARESH ASHWIN KUMAR BARIA <sup>(10)</sup>	40.7
FAYEZ J A ,TOY <sup>(11)</sup>	92
SAYYED AHMED SULTAN <sup>(12)</sup>	30
SALESH KUMAR SONI <sup>(13)</sup>	24
SATISH KUMAR <sup>(14)</sup>	32
PRESENT STUDY	56.1

Fayez et al<sup>(11)</sup> study had 92% cases having appendicular pathology, where as this study had 56.1%.

**Comparison of most common pain in abdomen**

STUDY	RIGHT LOWER QUADRANT PAIN (%)
KINNARESH ASHWIN KUMAR BARIA <sup>(10)</sup>	50
SAYYED AHMED SULTAN <sup>(12)</sup>	23.3
GAMMAL I MOUSSA <sup>(9)</sup>	64.3
PRESENT STUDY	64

In our study 63 cases ,43 presented with right lower quadrant pain .

**Diagnostic efficacy of Laparoscopy**

Study	Number of patients	Diagnosis achieved (%)
RAYMOND ET AL <sup>(8)</sup>	70	85.7
KARL MILLER ET AL <sup>(14)</sup>	59	89.8
KLINGENSMITH ET AL <sup>(15)</sup>	34	65
SCHRENK P ET AL <sup>(17)</sup>	92	87
KINNARESH ASHWIN KUMAR BARIA <sup>(10)</sup>	50	90
ANDREOLLO ET AL <sup>(18)</sup>	168	86.3
SALKY BA ET AL <sup>(16)</sup>	265	76
GOUDA M EL - LABBAN AND EMAD N HOKKAM <sup>(9)</sup>	30	83.3
PRESENT STUDY	63	93.65

In this study of 63 cases,59 cases(93.65%) had pathologic finding ,only 4 cases didn't had any abnormality,diagnosis was achieved in others above study.

**Therapeutic efficacy of diagnostic laparoscopy**

STUDY	NO OF PATIENTS	EFFICACY(%)
KLINGENSMITH ET AL <sup>(15)</sup>	34	73
VAFA SHAYANI ET AL <sup>(19)</sup>	18	77.8
MILLER ET AL <sup>(14)</sup>	59	89.3
KINNARESH ASHWIN KUMAR BARIA <sup>(10)</sup>	50	94

CHAO ET AL <sup>(20)</sup>	41	78
ONDERS RP ET AL <sup>(8)</sup>	70	70
PAANJEN ET AL <sup>(3)</sup>	35	>70
PRESENT STUDY	63	89

Therapeutic efficacy denotes no pain up to 2 months in post operative laparoscopy cases. This study had positive outcome around 89 % ie 56 cases as compared to previous other above studies. miller et al <sup>(15)</sup> had 89.3% similar results as this study.

**Effect of appendectomy in chronic abdominal pain cases .**

OUTCOME OF PAIN	NO OF CASES	PERCENTAGE
RESOLUTION OF PAIN	36	97.29
NO CHANGE	1	2.7
TOTAL	37	100

32 cases out of 63 underwent appendectomy ,97.29% had complete relief or reduction in pain .

**Effectiveness of appendectomy in chronic abdominal pain cases .**

STUDY	SUCCESS RATE (%)
FAYEZ ET AL <sup>(11)</sup>	95
RAYMOND P ET AL <sup>(8)</sup>	74
PRESENT STUDY	97.29

This study and Fayaz et al <sup>(11)</sup> study had similar percentage of relief from chronic abdominal pain after appendectomy .

**Conclusion:**

Most common finding in diagnostic laparoscopy in our study was chronic appendicular pathology (56.1%),adhesion (21.2%) abdominal koch's(19.7%)mesenteric lymphadenopathy(18.2%),normal finding (6.1%).

Laparoscopy has proved its efficacy by diagnostic and therapeutic tool in cases of chronic abdominal pain.Laparoscopy is quick ,safe,effective modality of treatment in chronic abdominal pain. Laparoscopy has high accuracy to pin point pathology in abdomen.Laparoscopy has diagnostic and advantage of therapeutic intervention at same setting,laparoscopy avoids unwanted laparotomies .Diagnostic have high efficacy in chronic abdominal pain cases.

**Bibliography:**

**1.American academy of paediatrics subcommittee on chronic abdominal pain.chronic abdominal pain in children,paediatrics 2005:115:812-5.**

**2.Camilleri m.management of patients with chronic abdominal pain in clinical**

**practice.neurogastroenterol motil.2006;18:499-506.**

**3.Paajanen,hannu,julkunen,Kristiina,warsi,Heidi.laparoscopy in chronic abdominal pain:a prospective nonrandomised long term follow –up study,journal of clinical gastroenterology,feb 2005,39(2),pg.110-114.**

**4.Townsend co,sletten cd,bruce bk,rome jd,luedtke,hodgson je.physical and emotional functioning of adult patients with chronic abdominal pain:comparison with patients with chronic back pain .j pain.2005;6:5-83.**

**5.mcgarrrity TJ,Peters DJ,Thompson C ,mcgarrrity SJ.Outcome of patients with chronic abdominal pain referred to chronic pain clinic.Am J Gastroenterol.2000;95:1812-6.**

**6.C.Palanivelu,Art of laparoscopic surgery,Textbook and atlas,Chapter 12-Diagnostic laparoscopy –Indication,tuberculosis and adhesiolysis,Jaypee publishers 2005,1 st edition vol 1,p 152-177.**

**7.Conlon K C and Toomey D,Chapter 19- Diagnostic laparoscopy in Fischer J E,Bland K I et al,editors Mastery of surgery,publishers-Lipincott Williams and Wilkins,2007,5 the edition ,Vol 1 ,p 251-258.**

**8.Raymond P ,Onders MD,Elizabeth A ,Mittendorf MD:Utility of laparoscopy in chronic abdominal Pain.Surg:2003;134(4).549-54.**

**9.Gouda M El –labban and Emad N Hokkam.The efficacy of laparoscopy in the diagnosis and management of chronic abdominal pain.J minim Access Surg. 2010 Oct-Dec ;6(4):95-99.**

**10.Kinnaresh ashwin kumar baria role of laparoscopy in diagnosis and management of chronic abdominal pain.indian j.sci.res.4(1)65-68,2013.**

**11.Fayez JA ,Toy NJ,Flangan TM.The appendice as the cause of chronic lower abdominal pain.Am J Obstet Gynecol.1995;172:122-23(Pubmed).**

- 12. Syed Ahmad Sultan Ali, Foad Ali Mossa, Naheed Sultan, Farha Iddress. Role of diagnostic laparoscopy in recurrent Vague Abdominal pain, Journal of Surgery (International) 18(2) April-June 2013.**
- 13. Sailesh kumar soni. Therapeutic Efficacy of diagnostic laparoscopy in chronic abdominal pain of undiagnosed etiology. IJSR-INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH.**
- 14. Satish Kumar . TO STUDY EFFICACY OF LAPAROSCOPY IN CHRONIC ABDOMINAL PAIN. Journal of evidence based medicine and healthcare; Volume 1, Issue 14, December 08, 2014; Page 1771-1787.**
- 15. Klingensmith ME, Soybel DI, Brooks DC; Laparoscopy for chronic abdominal Pain. Surg. Endosc: 1996; 10(11): 1085-7.**
- 16. Salky BA, Edey MB. The role of laparoscopy in the diagnosis and treatment of abdominal Pain syndromes; Surg Endosc: 1998; 12(7) 911-4.**
- 17. Schrenk P, Woisetschlager R, Wayand WU, Rieger R, Sulzbacher. H. Diagnostic laparoscopy .a survey of 92 patients. AM J Surg. 1994 Oct ; 168(4): 348-51.**
- 18. Andreollo NA, Coelho Neto Jde S, Lopes LR, Brandalise NA, Leonardi LS. Laparoscopy in the diagnosis of intra -abdominal diseases. Analysis of 168 cases. Rev Assoc Med Bras. 1999 Jan -Mar 45(1): 34-8.**
- 19. Vafa Shayani, Claudine Siegert and Philip Favia. The role of laparoscopic adhenolysis in treatment of patients with chronic abdominal pain or recurrent bowel obstruction, JSLS; 2002: APR-JUNE; 6(2): 111- 114.**
- 20. Chao K, Farrell S, Kerdelmidis P, Tulloh B. Diagnostic laparoscopy for chronic right iliac fossa pain. a pilot study. Aust N Z J Surg. 1997 Nov ; 67(11): 789-91.**