MAK HILL Publications Research Journal of Medical Sciences

Research Article
doi: 10.59218/makrjms.2023.11.219.222

OPEN ACCESS

Key Words
Abdominal pain, diagnostic laparoscopy, surgeon

Corresponding Author
Vineeth,
Department of Surgery, Institute of integrated medical sciences, Government medical college, Palakkad, Kerala India

Author Designation
[1-3]Assistant professor
[4]Senior resident

Received: 03 November 2023
Accepted: 19 November 2023
Published: 30 November 2023

Citation: P.T Mohamed Fayiz, M. Salahudheen, Bevin Roys Daniel and Vineeth, 2023. Diagnostic Laparoscopy in Chronic Non Specific Abdominal Pain. Res. J. Med. Sci., 17: 219-222, doi: 10.59218/makrjms.2023.11.219.222

Diagnostic Laparoscopy in Chronic Non Specific Abdominal Pain

[1]Mohamed Fayiz, P.T., [2]M. Salahudheen, [3]Bevin Roys Daniel and [4]Vineeth

[1-4]Department of Surgery, Institute of Integrated Medical Sciences, Government Medical College, Palakkad, Kerala, India

ABSTRACT

The success of laparoscopy in making definite and reliable diagnosis of abdominal disorders over the past two decades has firmly established it in the armamentarium of a general surgeon to perform this procedure safely. To study the role of diagnostic laparoscopy in patients with chronic non specific abdominal pain where other clinical symptoms and investigations are not conclusive. Study conducted on 50 patients aged between 15-55 years at Department of general surgery Coimbatore medical college and hospital from June-July 2016-2017. Patients with chronic non-specific abdominal pain were admitted in the surgical unit and clinical examination and review of records and imaging done. Follow up were done at 10th day, 1 month and 3 months post laparoscopy. Patients in the age group 25-40 are commonly affected (62%). Fifty-four percent of the study group was with previous history of surgery. Twenty-two patients (44%) are found to have adhesions, Abdominal Tuberculosis was noticed in 7 patients (14%). All patients with adhesions (22 patient) undergone Laparoscopic adhesiolysis. Out of them positive outcome seen in 20 patients (90.9%) after 3 months follow up, relief of patients was noted in 39 patients (78%). Laparoscopy has an effective diagnostic role in evaluating patients with chronic abdominal pain in whom conventional methods of investigations have failed to elicit a certain cause. Abdominal pain, diagnostic laparoscopy, surgeon.

INTRODUCTION

Laparoscopy has become a valuable tool in the toolbox of general surgeons due to its consistent and accurate ability to diagnose abdominal problems during the last twenty years. In spite of this, general surgeons continue to be hesitant to employ this diagnostic technique as frequently as possible[1].

In underdeveloped nations, fewer than 20% of people have access to imaging technologies such as Doppler, CT, MRI and ultrasound[2]. It has been demonstrated that laparoscopy is a valuable technique for the minimally invasive examination of certain patients with long-term abdominal illnesses whose diagnosis is still pending[3]. Despite looking into the necessary imaging tests such as CT and ultrasonography and laboratory work. Significant levels of depressive symptoms and a low quality of life are linked to chronic abdominal problems[4]. A lot of information is available about the social burden and suffering that are frequently linked to chronic abdominal illnesses[5].

This study involved 50 participants in order to assess the potential benefits of diagnostic laparoscopy in cases of chronic abdominal conditions with uncertain diagnosis. It was anticipated that in the near future, this procedure might eliminate the need for imaging techniques in order to determine the final diagnosis of these conditions.

Aim: To research the use of diagnostic laparoscopy in patients who have persistent, non-specific stomach discomfort and for whom further clinical signs and tests yield inconclusive results.

METHOD

This prospective descriptive study was carried out from June-July 2016-2017 on fifty patients in the general surgery department of Coimbatore Medical College and Hospital, ages fifteen to fifty-five.

Patients between the ages of 15 and 55 who were willing to undergo a diagnostic laparoscopy and had persistent, non-specific abdominal discomfort that is not explained by other tests or clinical symptoms were included in the research. The research excluded patients with acute abdominal discomfort, uncorrected coagulopathy, incapacity to tolerate pneumoperitoneum, generalised peritonitis, hemodynamic instability and these conditions. Patients were referred to the surgical centre with persistent, non-specific stomach discomfort. Comprehensive clinical assessment, documentation and imaging evaluation completed.

Table 1: Age and sex wise distribution

Sex	No. of case	Percentage
Male	14	28
Female	36	72
Age group (years)		
15-25	9	18
25-40	31	62
40-55	10	30

The patient's abdomen was painted and wrapped after placement. Produced a pneumoperitoneum. A 10 mm optical umbilical port is created and introduced the camera. Complete examination of the pelvic viscera and all abdominal quadrants was performed. Every surgical pathology identified during a laparoscopy was attempted to be treated without requiring an open conversion. In accordance with the protocol 5 mm functioning ports are produced. After 12 hrs following surgery, patients were given fluids and allowed to walk about. After a full day the regular diet is resumed. After two days, assuming all goes according to plan the patient is released. Follow-ups were conducted one-three and ten days after the laparoscopy.

Statistical analysis: Data thus collected will be entered in the Microsoft excel sheet and analysis was done by Epi info software of CDC.

RESULT

Incidence is higher in girls than in males. Seventy-two of the participants in our research were female, whereas 28% were male. Patients between the ages of 25 and 40 are most often impacted (62%). Compared to 46% of patients who had no prior surgical history, 54% of the study group had a history of surgery. Adhesions are discovered in 22 patients (44%) of whom 3 patients (6%) have congenital band adhesions, 17 patients (34%) have postoperative adhesions and 2 patients (4%) have inflammatory adhesions. Nineteen of the twenty-two patients have had surgery in the past. Two patients (4%) had an ovarian cyst and seven patients (14%) had an irritated appendix. Five patients (10%) had mesenteric lymphadenopathy and seven patients (14%) had abdominal tuberculosis. In one patient (2%) a thicker gallbladder with adhesions was seen.

Five individuals (10%) had a diagnostic laparoscopy where no problems were found. One patient (2%) may have pelvic inflammatory disorders as the cause of their free fluid. Twenty-two patients (all with adhesions) had laparoscopic adhesiolysis. After a three-month follow-up 20 patients (90.9%) of them had favourable outcomes. Seven patients all of whom had an inflamed appendix had laparoscopic appendicectomy. Six patients (89.7%) out of them had favourable results. Ten individuals received anti-tuberculosis treatment. Nine of the patients (or 90%) had favourable outcomes. Colitis and gastroenteritis were the cause of mesenteric lymphadenitis in two cases. Treatment was conservative. The result was 100% positive. Two individuals with ovarian cysts had their cysts aspirated laparoscopically. The result was

Table 2: showing final diagnosis, treatment given and positive outcome

Diagnosis	Operative findings	Treatment	No. of patients	Positive outcome
Adhesions	Postop adhesion adhesion due to congenital bands Inflammatory adhesions	Adhesiolysis	22 (44%)	20 (90.9%)
Recurrent appendicitis	Inflammed appendix	Appendicectomy	7 (14%)	6 (85.7%)
Abdominal TB	Abdominal tb Mesenteric lymphadenitis (3)	Att	10 (20%)	9 (90%)
Right left ovarian cyst	Right Left ovarian cyst	Cyst aspiration	2 (4%)	2 (100%)
Gastroenteritis colitis	Mesenteric lymphadenitis	Conservative	2 (4%)	2 (100%)
Acalculous cholecystitis	Thickened gall bladder with adhesions	Cholecystectomy	1 (2%)	1 (100%)
Idiopathic chronic abdominal pain	No abnormality detected free fluid	Conservative	6 (12%)	5 (83.5%)

Table 3: Pain response after diagnostic laparoscopy (after 3 months)

Pain respopnse (follow up after 3 months)	No. of patients	Percentage
Relief	39	78
Reduced	6	12
Persistent	5	10

Table 4. comparision with other studies

Study	Efficacy	No. of cases	Year of study	Outcome
(Pain response)				
Raymond *et al*.[6]	85.7	70	2003	71.4%
Maussa and mahfiaz[7]	78.6	56	2004	80.2%
El labban and hokkam *et al*.[8]	83.3	30	2010	80%
Talaskar *et al*.[9]	82.8	35	2013	81.8%
Present study	88	50	2016-2017	90%

100% positive. Acalculus cholecystitis patients had laparoscopic cholecystectomy the patient's prognosis was 100%. Treatment for six individuals with idiopathic stomach discomfort was cautious. Five patients (83.3%) had positive results. Of the 50 patients 39 (78% of the patients) reported feeling better. Ninety percent of the patients in our research responded well to pain overall, with six individuals (12%) reporting decreased pain following a diagnostic laparoscopy. Five individuals (10%) had persistent discomfort.

DISCUSSIONS

Every patient in the research experienced persistent stomach discomfort and after ruling out any organic causes of pain with standard laboratory and radiographic testing they underwent laparoscopic examination. The study verified that laparoscopy could safely identify aberrant findings in this challenging patient population and may generally enhance the result. The patients were mostly female. Not unexpectedly the majority of patients had prior abdominal surgery and adhesions were discovered in most cases. Less people were found to have no obvious pathology on laparoscopy but a sizable percentage had a range of other disorders that might be the cause of this pain. Overall, this serie's results were favourable with the majority of patients seeing notable improvement from this chronic pain postoperatively.

Our study's total effectiveness was 88%. These studie's >80% effectiveness suggests that diagnostic laparoscopy plays a significant role in the management of this challenging patient population. Our results compare well with the overall favourable outcome observed following diagnostic laparoscopy in the aforementioned investigations. Therefore, it can be said that it is useful in assessing individuals who have persistent stomach discomfort for whom traditional research techniques have been unable to identify a specific explanation. It is also acknowledged that diagnostic laparoscopy has a valuable therapeutic component that should not be undervalued.

CONCLUSION

When traditional investigative techniques have not been able to identify the reason of a patient's chronic stomach discomfort, laparoscopy can be a valuable diagnostic tool. Being a less invasive procedure, laparoscopy has significantly decreased the frequency of negative laparotomies while also resolving the issue of delays in the definitive diagnosis. Additionally, it has greatly decreased the number of investigations and hospital stays, which has resulted in a major drop in treatment costs. One of the primary problems in the management of these problems is surgeon and patient discontent, which is addressed by diagnostic laparoscopy as well.

REFERENCES

1. Soper, N.J., L M. Brunt, and K. Kerbl, 1993. Surgical clin north am. Family. Medicine., 73: 265-289.
2. Crist, D.W. and T.R. Gadacz, 2006. Complications of laparoscopic surgery. Surg. Clin. North Am., 30: 535-540.
3. Russell, R.C.G., N.S. Williams and C.J. K. Bulstrode, 2004. Bailey and love's short practice of surgery. 24th ed Edn., Hodder education publishers, UK, ISBN-14: 978-0340808191, Pages: 107.

4. Philips, P.A. and J.F. Amaral, 2001. Abdominal access complications in laparoscopic surgery. J. Am. Coll. Surgeons, 192: 525-536.
5. Bobb, R.R. 1968. Detection of hepatic cancer: Role of peritoneoscopy. Gastro. Endosc., 15: 40-41.
6. Onders, R.P. and E.A. Mittendorf, 2003. Utility of laparoscopy in chronic abdominal pain. Surg., 134: 549-554.
7. Moussa, G.I. and A.E. Mahfouz, 2003. Role of laparoscopy in management of unexplained chronic abdominal pain. Egypt. J. Surg., 23: 22-29.
8. El-labban, G. and E. Hokkam, 2010. The efficacy of laparoscopy in the diagnosis and management of chronic abdominal pain. J. Minimal Access Surg., 6: 95-99.
9. Tulaskar, N., 2013. Evaluation of role of laparoscopy in chronic abdominal pain. Int. J. Biol. Med. Res., 4: 3230-3233.