



## ELECTIVE LAPAROSCOPIC APPENDECTOMY FOR CHRONIC RIGHT LOWER QUADRANT PAIN

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### ABSTRACT

**BACKGROUND:** Chronic right lower quadrant abdominal pain (RLQ) is common clinical entity and continues to remain a diagnostic and therapeutic problem. Although the typical presentation of acute appendicitis is well known, there is a debate whether the so called chronic or recurrent appendicitis may cause persistent or recurrent pain in the RLQ. Chronic RLQ pain causes disability and distress and causes significant cost to health services.

Laparoscopic is changing the view regarding exploration in patients with right lower quadrant. The study was done to see the role of elective laparoscopic appendectomy for chronic or recurrent right lower quadrant pain and the relationship between clinical improvement and histopathological Findings of removed appendix.

**METHODOLOGY:** An observational study was done in Institute of surgery SMCSI Medical College, Karakonam, Kerala, India between January 2021 to December 2022. 20 patients with chronic or recurrent right lower quadrant pain for more than 3 months in whom routine investigations, radiological investigations didn't reveal any pathology. Those patients subjected to laparoscopic appendectomy, then patients followed after 6 weeks and 3 months of interval. The primary outcome measure was by pain scored by the patient, secondary outcome was relationship between clinical improvement and histopathological findings of removed appendix.

**RESULTS :** In our study we had 40%, 8 cases male and 12 cases, 60% were females the age group with maximum no of cases with chronic or recurrent RLQ pain was 31-40 years with 7 cases 35.00%. In our study, 11 cases 55% had complete relief of RLQ pain after 6 weeks, and at the end of 3 months 17 patients, 85% had complete relief of pain but still 15% patients complained of RLQ abdominal pain. All the 3 cases who had no relief were females and low back ache or PID could be a contributory factor. In our study, it shows that 40 (80%) had complete relief of RLQ pain after 6 weeks, and at the end of 3 months 45 (90%) patients had complete relief of pain but still 5 (10%) patients complained of RLQ abdominal pain.

The histopathological results for all 20 patients, 15 patients (75%) had chronic, 10 patients had lymphoid hyperplasia (5%) had normal histology. In our study no post op complications or post op deaths were encountered.

**CONCLUSION:** In patients with chronic right lower quadrant abdominal pain, elective laparoscopic appendectomy could be an effective therapeutic procedure in properly selected patients. Histopathological findings of removed appendix does not contribute in establishing the diagnosis in these patients.

**KEYWORDS :** Chronic right lower quadrant pain (RLQ), Chronic appendicitis, Laparoscopic appendectomy.

### INTRODUCTION

Chronic right lower quadrant abdominal pain can be diagnostic challenge. These patients are seen by a lot of different physicians and the surgeons are consulted at last after other modalities have failed to provide resolution of their symptomatology.

The recent advances in laparoscopic surgery provides precise visual assessment of intra abdominal conditions for diagnosis and prompt intervention. It has a significant diagnostic and therapeutic role in patients with chronic right lower quadrant abdominal pain. In case of diagnostic uncertainty, laparoscopy may help to avoid unnecessary laparotomy, aids in planning surgical treatment by providing accurate diagnosis.

Laparoscopy allows us to treat various conditions of abdomen that could not be diagnosed otherwise. So diagnostic laparoscopy should be considered in patients presenting with chronic right lower quadrant abdominal pain, since it is minimally invasive, safe, efficacious, and invariably effective mode of diagnostic modality and can be performed rapidly with minimal sequelae and post-procedural pain.

### INTRODUCTION

Chronic right lower quadrant abdominal pain can be diagnostic challenge. These patients are seen by a lot of different physicians and the surgeons are consulted at last after other modalities have failed to provide resolution of their symptomatology.

Acute abdomen is the most widespread surgical complaint that is seen across all ages that present to the emergency room<sup>(1,2)</sup>. When anyone comes to the emergency room for a surgical consult, many a times it is difficult to elicit a proper

history, as the result of the agonizing pain.<sup>(3)</sup>

In terms of epidemiology, the cases of appendicitis constitute a third of all the cases who get hospitalized with the acute surgical abdomen in children<sup>(2,3)</sup>. The estimated incidence of appendicitis in children is found to be around 8.67 percent for the male child and 6.7% for percent for the female child<sup>(4)</sup>.

Whenever there is a blockage of the lumen of the appendix, it can lead to appendicitis<sup>(5,6)</sup>. There are various reasons of obstruction to the lumen of the appendix like the fecolith, parasites, enlarges lymph nodal tissue in the appendix<sup>(7,8)</sup>.

The recent advances in laparoscopic surgery provides precise visual assessment of intra abdominal conditions for diagnosis and prompt intervention. It has a significant diagnostic and therapeutic role in patients with chronic right lower quadrant abdominal pain. In case of diagnostic uncertainty, laparoscopy may help to avoid unnecessary laparotomy, aids in planning surgical treatment by providing accurate diagnosis. Diagnostic laparoscopy is better when compared to open laparotomy in the absence of adhesions where the whole peritoneal cavity can be visualized and it improves the diagnostic accuracy to avoid non-therapeutic laparotomy<sup>(10)</sup>. Diagnostic laparoscopy was mainly introduced as the final staging investigation in Gastro-intestinal cancer patients. Laparoscopy allows us to treat various conditions of abdomen that could not be diagnosed otherwise. So diagnostic laparoscopy should be considered in patients presenting with chronic right lower quadrant abdominal pain, since it is minimally invasive, safe, efficacious, and invariably effective mode of diagnostic modality and can be performed rapidly with minimal sequelae and post-procedural pain. The diagnostic values of emergency laparoscopy have been established and been proved around

1950s and 1960<sup>(9-14)</sup>

Laparoscopic is changing the view regarding exploration in patients with right lower quadrant . Hence the study was done to see the role of elective laparoscopic appendectomy for chronic or recurrent right lower quadrant pain and the relationship between clinical improvement and histopathological Findings of removed appendix.

## MATERIALS AND METHODS

### METHODOLOGY:

An observational study was done in Institute of surgery SMCSI Medical College, Karakonam, Kerala, India between January 2021 to December 2022. 20 patients with chronic or recurrent right lower quadrant pain for more than 3 months in whom routine investigations ,radiological investigations didn't reveal any pathology. Those patients subjected to laparoscopic appendectomy, then patients followed after 6 weeks and 3 months of interval. The primary outcome measure was by pain scored by the patient ,secondary outcome was relationship between clinical improvement and histopathological findings of removed appendix. The following cases were included Patients more than 18 years with chronic or recurrent right lower quadrant pain for more than three months in whom routine investigations didn't reveal any pathology Patient should have experienced continuous pain or atleast one pain attack in the month prior to inclusion. These were excluded Previous abdominal surgery, Known case of specific gastrointestinal, gynecological or urological diseases, Diagnostic laparoscopy reveals abnormalities other than those related to appendix

### Assessment of Parameters:

#### Pain score :

1. Pain unchanged ( or even worse ).
2. Remarkable reduction of pain, but not completely pain free.
3. Completely pain free, no more right lower abdominal complaints.

Histopathology – Normal or having signs of appendicitis

### RESULTS :

In our study we had 40 % , 8 cases male and 12 cases, 60 % were females the age group with maximum no of cases with chronic or recurrent RLQ pain was 31- 40 years with 7 cases 35.00% . In our study, 11 cases 55% had complete relief of RLQ pain after 6 weeks, and at the end of 3 months 17 patients, 85% had complete relief of pain but still 15% patients complained of RLQ abdominal pain. All the 3 cases who had no relief were females and low back ache or PID could be a contributory factor .

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### DISCUSSION

Dr. R.M.H. Roumen et al <sup>(11)</sup> on 40 patients noted 6 months after surgery based on pain score, they observed that in the appendectomy group higher proportion of patients had significant relief of pain than patient who underwent only diagnostic laparoscopy only. In patients who still had RLQ pain and appendix in situ, second time diagnostic laparoscopic procedure intended for appendectomy was done.

Fayez et al <sup>(12)</sup> study, 63 patients who had appendectomy for chronic RLQ pain were evaluated. In 92%of removed appendices, histopathological abnormalities were found and

95% patients were cured completely after appendectomy. This study concluded that the chronic appendicitis does exist as a separate entity and could be the cause of chronic RLQ pain.

Krone et al <sup>(13)</sup> on 1,718 prophylactic appendectomies during gynaecological operations noted histopathological proof of acute appendicitis in 8 % and signs of chronic appendicitis in a whopping 65% and only in 21% were microscopically normal.

Bhavuray Tel et al <sup>(14)</sup> on 40 cases noted that 36(90 %) patients were relieved of pain completely. Only 4(10 %) patients continued to have persistent right lower quadrant pain. Duration of follow up was 6 months. Postoperative pain scores favour appendectomy (p<0.005).

### CONCLUSION:

In patients with chronic right lower quadrant abdominal pain, elective laparoscopic appendectomy could be an effective therapeutic procedure in properly selected patients. Histopathological findings of removed appendix does not contribute in establishing the diagnosis in these patients.

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