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ORIGINAL RESEARCH

Surgical outcome of appendectomy in complicated and uncomplicated appendicitis

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Abstract

Background: Appendicitis is inflammation of the appendix. Abdominal pain, nausea, vomiting, and decreased appetite are common symptoms. The present study was conducted to assess surgical outcome of appendectomy in complicated and uncomplicated appendicitis.

Materials & Methods: 90 cases of appendicitis undergoing appendectomy on both genders were divided into 2 groups. Group I included cases of uncomplicated appendicitis and group II had complicated appendicitis. Parameters such as symptom, surgical findings, postoperative complications, and length of hospital stay were also noted.

Results: Group I had 20 males and 25 females and group II had 23 males and 22 females. Pre hospital time in group I was 1120.2 minutes and 2524.5 minutes in group II. In hospital time was 406.2 minutes in group I and 458.3 minutes in group II. Overall time (hours) was 28.3 and 56.1 in both groups. Duration of operation (hours) was 22.6 and 38.4 in both groups. Duration of hospital stay was 3.6 days and 4.8 days in group I and II respectively. The difference was significant ($P< 0.05$).

Conclusion: Cases of complicated appendicitis have more pre hospital time, hospital stays, duration of operation. The emergency management is appendectomy in patients with appendicitis.

Key words: Appendicitis, laproscopic, operation

Introduction

Appendicitis is inflammation of the appendix. Abdominal pain, nausea, vomiting, and decreased appetite are common symptoms. Severe complications of a ruptured appendix include widespread, painful inflammation of the inner lining of the abdominal wall and sepsis.[1]As the appendix becomes more swollen and inflamed, it begins to irritate the adjoining abdominal wall. This leads to the localization of the pain to the right lower quadrant. This classic migration of pain may not be seen in children below 3 years. This pain can be elicited through signs and can be severe.[2]The initial symptoms of appendicitis are known to be vague and nonspecific. However, because the symptoms depend on patients' subjective feelings, the investigators had to rely on patients' statements. The time when any known symptoms, such as nausea, vomiting, anorexia, or abdominal pain were reported by the patient was regarded as the onset of appendicitis symptoms.[3]

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Appendectomy may be performed laparoscopically or as open operation. Recovery may be a little quicker with laparoscopic surgery; the procedure is more expensive and resource-intensive than open surgery and generally takes a little longer. It has additional risks associated with pneumoperitoneum. Advanced pelvic sepsis occasionally requires a lower midline laparotomy.[4]Recovery time from the operation varies from person to person. Some take up to three weeks. In the case of a laparoscopic operation, the patient has three stapled scars of about an inch in length, between the navel and pubic hair line.[5]The present study was conducted to assess surgical outcome of appendectomy in complicated and uncomplicated appendicitis.

Materials & methods

The present study was conducted among 90 cases of appendicitis undergoing appendectomy on both genders. All were informed regarding the study and written consent was obtained.
Data such as name, age, gender etc. was recorded. Patients were divided into 2 groups. Group I included cases of uncomplicated appendicitis and group II had complicated appendicitis. Parameters such as symptom, surgical findings, postoperative complications, and length of hospital stay were also noted. Results thus obtained were subjected to statistical analysis using Chi- square test. P value less than 0.05 was considered significant.

Results

Table I Distribution of patients

Groups	Group I	Group II
M:F	20:25	23:22

Table I shows that group I had 20 males and 25 females and group II had 23 males and 22 females.

Table II Comparison of parameters in both groups

Parameters	Group I	Group II	P value
Pre hospital time (mins)	1120.2	2524.5	0.02
In hospital time (mins)	406.2	458.3	0.72
Overall time (hours)	28.3	56.1	0.03
Duration of operation (hours)	22.6	38.4	0.05
Duration of hospital stay (days)	3.6	4.8	0.04

Table II, graph I shows that pre hospital time in group I was 1120.2 minutes and 2524.5 minutes in group II. In hospital time was 406.2 minutes in group I and 458.3 minutes in group II. Overall time (hours) was 28.3 and 56.1 in both groups. Duration of operation (hours) was 22.6 and 38.4 in both groups. Duration of hospital stay was 3.6 days and 4.8 days in group I and II respectively. The difference was significant ($P< 0.05$).

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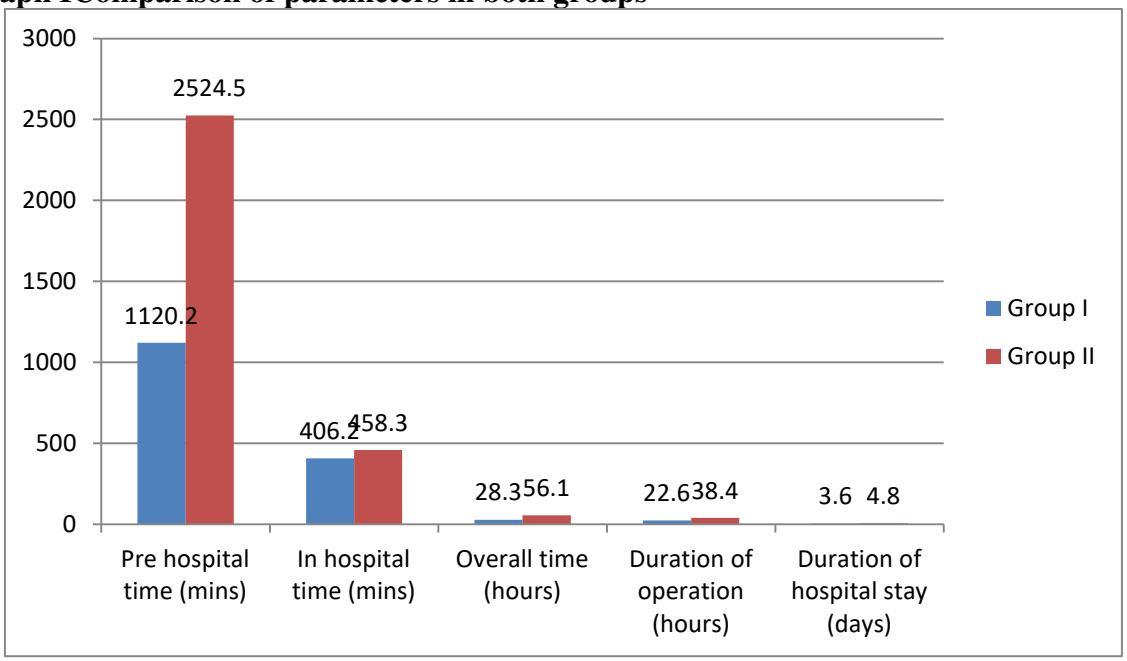
Graph IComparison of parameters in both groups



Discussion

An appendectomy is the surgical removal of the vermiform appendix. This procedure is normally performed as an emergency procedure, when the patient is suffering from acute appendicitis.[6]

Appendicitis has been known to require emergency management. Without immediate surgery, appendicitis may progress to perforation of the appendix.[7] The classification of the disease according to stage of evolution is important to assess severity and prognosis, as well as allowing the development of therapeutic management protocols and research.[8] Appendectomy is the possible management of severe cases.[9,10]The present study was conducted to assess surgical outcome of appendectomy in complicated and uncomplicated appendicitis

We found that group I had 20 males and 25 females and group II had 23 males and 22 females. Bat et al[11] in their study a retrospective analysis was performed who had undergone laparoscopic appendectomy for complicated appendicitis. A total of 452 patients were operated with LA. There were 362 (80.1%) uncomplicated (Group I) and 90 (19.1%) complicated Group (II) appendicitis.Theintraabdominal abscess rate was 14.35% in Group I and 19.5% in Group II. The wound infection and rate of incisional hernia were also higher in Group II. The postoperative complications including intraabdominal abscess, wound infection and incisional hernia after LA in complicated appendicitis found high. LA should be performed very carefully in complicated appendicitis.

We observed that pre hospital time in group I was 1120.2 minutes and 2524.5 minutes in group II. In hospital time was 406.2 minutes in group I and 458.3 minutes in group II. Overall time (hours) was 28.3 and 56.1 in both groups. Duration of operation (hours) was 22.6 and 38.4 in both groups. Duration of hospital stay was 3.6 days and 4.8 days in group I and II respectively. Pramodet al[12] in their study 35 patients who had complicated appendicitis and who were treated with surgery. 83% of patients with complicated appendicitis were younger than 40 years of age, with children constituting about 43% of total cases. All the patients had typical right iliac fossa pain, with tenderness and localized guarding in 37%. Ultrasound diagnosed appendicitis in 80% of cases. Leukocytosis was seen in 71% with neutrophil shift in 85% of patients. 60% of patients had perforation and abscess formation, gangrene in 45%

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and mass in 37%. Post operative complications were noted in 51% of the patients, commonly paralytic ileus (46%) and wound infection (20%). There was no mortality in our study and the general overall outcome of treatment was good.

Conclusion

Authors found that cases of complicated appendicitis have more pre hospital time, hospital stays, duration of operation. The emergency management is appendectomy in patients with appendicitis.

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