

Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies

Journal home page: www.jamdsr.com

doi: 10.21276/jamdsr

Index Copernicus value = 82.06

(e) ISSN Online: 2321-9599;

(p) ISSN Print: 2348-6805

Original Research

Assessment of cases of laparoscopic appendectomy- A clinical study

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ABSTRACT:

Background: The most common cause of acute abdomen in surgical is appendicitis. Among the surgeries of abdomen performed all over the world, appendectomy is the most common operation performed. The present study was conducted to assess outcome of laparoscopic appendectomy in cases of appendicitis. **Materials & Methods:** This study was conducted on 72 patients of appendicitis of both genders. In all patients, clinical features were recorded. **Results:** Out of 72 patients, there were 42 males and 30 females. The number of patients with operation time 45-60 mins were 25, with 60-90 mins were 12, with 90-120 mins were 15, with <120 mins were 20. The difference was significant ($P < 0.05$). Complications were wound infections in 7, incisional hernia in 1, ileus in 3 and intra- abdominal abscess in 4 patients. The difference was significant ($P < 0.05$). **Conclusion:** Authors found that there was male predominance as compared to females. Common complication found was wound infections, incisional hernia, ileus and intra- abdominal abscess.

Key words: Acute appendicitis, laproscopic appendectomy, wound

Received: 26 October, 2019

Revised: 21 December, 2019

Accepted: 23 December, 2019

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This article may be cited as: Pareek G. Assessment of cases of laparoscopic appendectomy- A clinical study. J Adv Med Dent Scie Res 2020;8(2):27-30.

INTRODUCTION

The most common cause of acute abdomen in surgical is appendicitis. Among the surgeries of abdomen performed all over the world, appendectomy is the most common operation performed.¹ Many studies have shown variations of age, gender in acute appendicitis as well as the seasonal variations in the occurrence of acute appendicitis, although the cause is not found yet. Patients presenting with acute appendicitis on surgery, have been found to have non-inflamed appendix.² This hampers the results of studies on incidence of appendicitis. Thus the actual incidence of appendicitis is difficult to predict. There is no doubt that the most common cause of acute abdomen is surgically appendicitis. There has been no uniformity in the

studies reporting incidence of appendicitis in relation to age, sex and season.³

The most important causal factor of AA appears to be the development of luminal obstruction, whose etiology is associated with age – lymphoid hyperplasia is the most common factor found in patients younger than 20 years, while the obstruction by a fecalith is more common in the elderly.⁴ The use of laparoscopic appendectomy for complicated appendicitis is controversial, especially with regard to the rate of postoperative infectious complications including wound infection and abscess formation in abdominal cavity.⁵ The present study was conducted to assess outcome of laproscopic appendectomy in cases of appendicitis.

MATERIALS & METHODS

This study comprised of 72 patients of appendicitis of both genders. Patients were informed regarding the study and written consent was taken. Ethical approval was obtained prior to the study.

Patient information such as name, age, gender etc. was recorded. Patients underwent ultrasonography of the abdomen (USG). In all patients, clinical features were

recorded. Habits like alcohol intake, smoking and diet were enquired. Detailed systemic examination was carried pertaining to build and nutrition, presence of lymphadenopathy, cardiovascular system and respiratory system. Results thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 72		
Gender	Male	Female
Number	42	30

Table I shows that out of 72 patients, there were 42 males and 30 females.

Graph I Distribution of patients

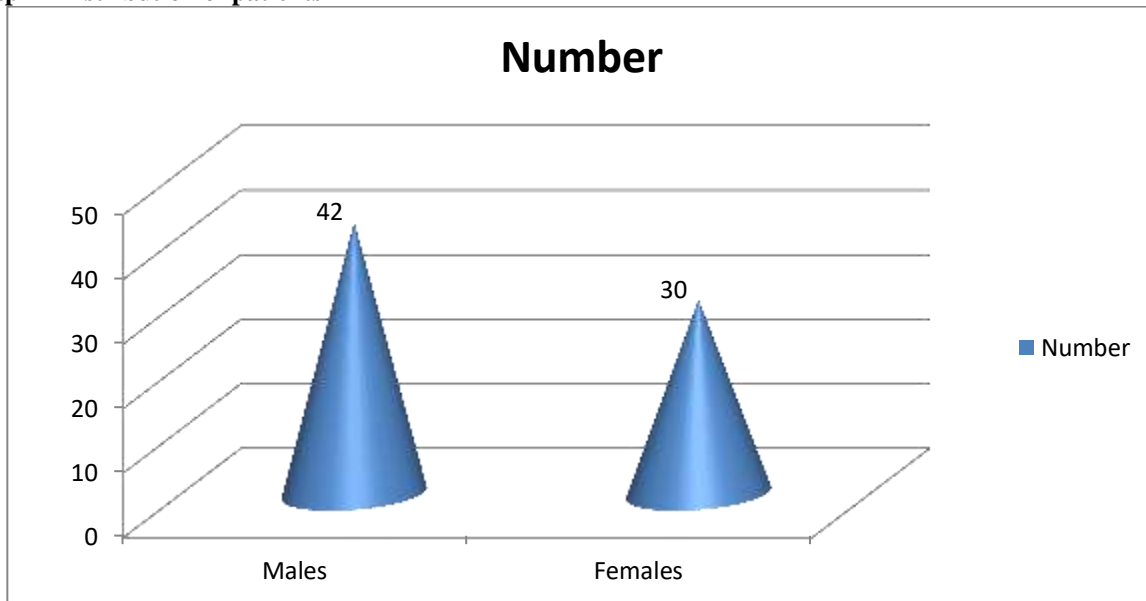


Table II Parameters in patients

Parameters	Number	P value
Operation time 45-60 mins.	25	0.05
60-90 mins.	12	
90-120 mins.	15	
<120 mins.	20	

Table II, graph II shows that number of patients with operation time 45-60 mins were 25, with 60-90 mins were 12, with 90-120 mins were 15, with <120 mins were 20. The difference was significant (P< 0.05).

Graph II Parameters in patients

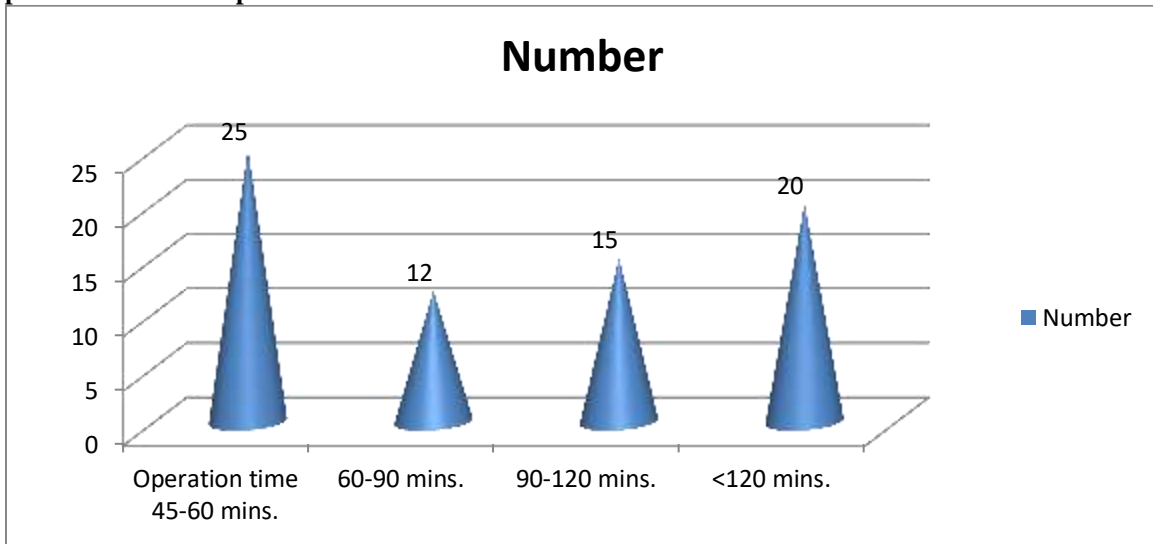
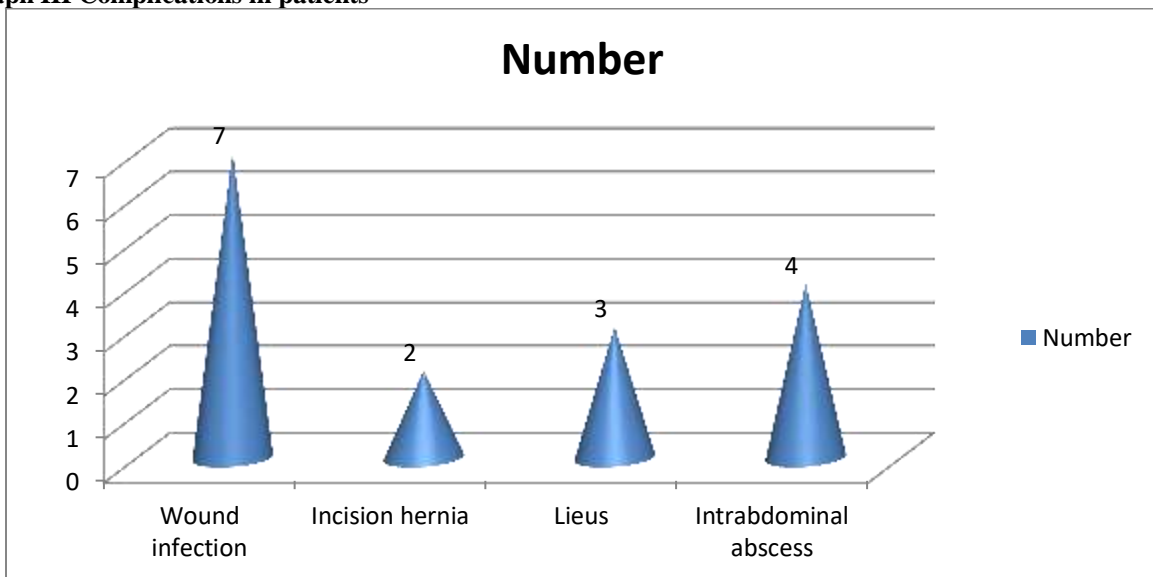


Table III Complications in patients

Complication	Number	P value
Wound infection	7	0.01
Incision hernia	2	
Lieus	3	
Intrabdominal abscess	4	

Table III, graph III shows that complications were wound infections in 7, incisional hernia in 1, lleus in 3 and intra-abdominal abscess in 4 patients. The difference was significant ($P < 0.05$).

Graph III Complications in patients



DISCUSSION

Acute appendicitis (AA) is the most common surgical disease with a lifetime risk of 7–8%. Traditionally, appendectomy has been the treatment of choice for acute appendicitis. Mortality rate after appendectomy is very low and may range from 0.07 to 0.7% rising to 0.5 to 2.4% in patients without and with perforation. Furthermore, overall postoperative complication rates ranged between 10 and 19% for uncomplicated AA and reaching 30% in cases of complicated AA.⁶ Improving the diagnostic pathway is the cornerstone for decreasing the negative appendectomy rate and the risk of wrong diagnosis. Before the wide spread use of CT scans, the diagnosis of acute appendicitis was mainly based on symptoms, signs, and laboratory data.⁷ The present study was conducted to assess outcome of laparoscopic appendectomy in cases of appendicitis.

In this study, out of 72 patients, there were 42 males and 30 females. The number of patients with operation time 45-60 mins were 25, with 60-90 mins were 12, with 90-120 mins were 15, with <120 mins were 20. Dhruv et al⁸ conducted a study in which the incidence of appendicitis was much more in females i.e. 60% compared to only 40% in males. Appendicitis was most common in younger age groups of below 30 years of age. As the age increased the incidence of appendicitis decreased. From 83.2% at 30 or less than 30 of age it drastically dropped down to 15.9% in the age group of 30-49 years and in the age group of 50 and above, the incidence of appendicitis came down to less than one percentage. Only three cases were recorded above the age of 50 years.

We found that complications were wound infections in 7, incisional hernia in 1, lleus in 3 and intra-abdominal abscess in 4 patients. Poprom et al⁹ conducted a study among 9 RCTs. A network meta-analysis indicated that those receiving antibiotics had about 12-32% lower chance of treatment success and lower risk of complication about 23-86%, especially Beta-lactamase than appendectomy. The overall appendicitis recurrence rate in the antibiotic group was about 18.2%. The SUCRA indicated that appendectomy was ranked first for treatment success and least complications, followed by Beta-lactamase.

Lima et al¹⁰ conducted a retrospective, observational study in 638 patients diagnosed with AA, and analyzed the variables gender, age, evolutionary phase, length of hospital stay, pathological diagnosis, use of antibiotics, use of drains, complications and mortality. AA was more prevalent in young adults (19-44 years) and males (65.20%). The mean hospital stay was seven days and phase II was the most prevalent. We found the histopathological diagnosis of primary tumor of the appendix in six patients (0.94%), adenocarcinoma being the most common histologic type (66.7%). Regarding the use of antibiotics, 196 patients underwent antibiotic

prophylaxis and 306 received antibiotic therapy. Eighty-one patients used some kind of drain, for an average of 4.8 days. Seventeen patients died (2.67%), predominantly males (70.59%), with mean age of 38.47 years.

CONCLUSION

Authors found that there was male predominance as compared to females. Common complication found was wound infections, incisional hernia, lleus and intra-abdominal abscess.

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