



ORIGINAL RESEARCH PAPER

Medical Science

CLINICAL STUDY OF PATIENTS UNDERGOING DELAYED SURGERY WHEN DIAGNOSIS OF ACUTE APPENDICITIS IS IN DOUBT

KEY WORDS: Appendicitis, Delayed Surgery

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ABSTRACT

AIM : To study the effect of delayed surgery after clinical observation in patient with doubtful diagnosis of acute appendicitis I form of reducing negative appendectomy rate and the incidence of complication.

MATERIAL AND METHOD: 100 patients, who were operated for appendicitis between January 2017 to March 2019, were included in this retrospective study. These patients were divided into two groups based on timing of surgery after admission. These patients were divided into two groups based on timing of surgery after admission. These two groups were studied in respect to age, sex, Alvarado score at time fo admission. Ultrasound findings, operative findings. Histopathology and postoperative complication. Proportions of negative appendectomies and complicated appendicitis were analysed statistically.

RESULT: Normal appendectomy were significantly less ($P < 0.05$) in group B(1 out of 35). The number of complicated appendicitis were higher in group A (13/65) as compared to group B(4/35) but not significant ($P > 0.06$) Post operative complication was also high in group A. Conclusion : From this retrospective study it is clear that in cases with doubtful initial diagnosis of appendicitis. It is better to wait and these patients need to be continuously monitored clinically to prevent complication.

INTRODUCTION :

The management of appendicitis when diagnosis is in doubt is matter of discussion. Appendicitis is one of the most common abdominal surgical emergencies [5]. Early Surgical management of appendicitis is done by most surgeon keeping in mind that some cases of appendicitis [4]. Is done by most surgeon keeping in mind that some cases of appendicitis can rapidly progress to gangrenous appendicitis. Availability and affordability of investigative procedure like computerized tomography discourage the delayed surgical management even in when diagnosis is in doubt[13] . Sometime delay in surgery will lead to a rise in complication rate.

Although it is a common practice to admit and observe patients with an uncertain diagnosis of acute appendicitis. This is done to avoid unnecessary appendectomies as well as correctly identify those cases whose diagnosis at presentation was uncertain, recent reports have suggested that the early management of acute appendicitis with fluid and antibiotic is safe[8] . In this study aim is to evaluate the effect of delayed surgery after period of observation in patient with doubtful diagnosis of acute appendicitis inform of improvement in negative appendectomy rates and the incidence of complications [7] .

MATERIAL AND METHODS :

This retrospective study was done n 100 patients who were operated with the diagnosis of acute appendicitis between Jan, 2017 to March, 2019 in Department of Surgery, at Patna Medical College and Hospital Patna.

These patients were examined clinically and scored according to Alvarado score at time for presentation [11]. Ultrasound findings were categorized as 1. Normal scan 2. Thickened and visualized appendix suggestive of appendicitis of 3. Probe tenderness or free fluid [14] . These patients were divided into two groups based on timing of surgery after admission. The first group includes patients who had definite features of acute appendicitis and undergone surgery with 12 hours of their Admission. The second group includes patients who had doubtful diagnosis of appendicitis on admission and were operated between 12-36 hours of presentation. All the patients received antibiotics (Ceftriaxone and metronidazole). These two groups of patients were examined in respect of age, Sex, Alvarado score at presentation, ultrasound finding operative findings

histopathology and postoperative complication [12]. Operative findings were categorized as complicated appendicitis. e.g. Perforation, gangrene, peritonitis, abscess or lump and histological findings were considered as gold standard for the diagnosis of appendicitis. Systemic and local postoperative complication occurring within 30 days of surgery were also noted. The time lapse from onset of symptoms to admission at hospital was not studied. The study was done to statistically analyse and compare the proportions of negative appendectomies in each group and the incidence of complication of appendectomies and complication. The statistical test used was Z-test for standard errors of proportions to compare the proportion of these parameters..

RESULT :

Out of 100 patients the group a (Consists of 64 patients) were operated within 12-36 hours (mean time 22.5 hours). There were total 68 male and 32 female patients and male and female ratio was 2.1:1. Group wise age and sex distribution was comparable. All patients were scored on Alvado Score and noted that 31 patients had Alvarado score above 7 and in 39 patients. Score was 6 or less. (Fig 2).

TABLE I: GROUPWISE ULTRASONOGRAPHIC FINDING.

UGC Finding	Group A	Group B
Acute Appendicitis	46	17
Probe tenderness	4	3
Free Fluid	3	3
Normal	2	7

TABLE II : GROUP WISE DISTRIBUTION OF COMPLICATED APPENDICITIS

Complication	Group A	Group B
Perforation	8	0
Gangrene	4	2
Abscess	2	0
Lump	0	1

TABLE III : STATISTICAL ANALYSIS

Parameter	Group A	Group B	Z Value	P Score
Negative Appendicitis	4/65	1/35	2.5	<0.05
Complicated Appendicitis	13/65	4/35	1.88	>0.05

DISCUSSION :

Accurate diagnosis of appendicitis is a challenging task. Management of appendicitis is done keeping in mind two things. Minimize negative appendectomy and preventing complications [2]. Clinical examination has major role in diagnosis of appendicitis but studies have shown that a better outcome in the form of decreased negative appendectomy rates by using diagnostic scoring system.

The Alvarado score is a 10 points scoring system for the diagnosis of appendicitis based on clinical signs and symptoms and a differential leukocyte count. In his original paper, Alvarado recommended an operation for all patients with scores of 5 or 6. Similarly imaging studies such as ultrasound have an average sensitivity and specificity of around 85-90%. Thus incorporating repeated clinical examination using diagnostic scoring systems and use of imaging has resulted in better diagnostic outcome. The rates of misdiagnosis and negative appendectomy have been more in females and rates of complications has been more in elderly people [3]. Delay in surgery has been a matter of controversy regarding development of complications [7]. Some studies have shown an increased incidence of complications and perforation with delay. Whereas others have shown no effect of short term delays and Physicians' delay in the present study there was no significant increase in the complicated appendicitis or postoperative complications in the patients with delay in surgery most probably because these patients had low Alvarado on presentation, received antibiotics and most importantly they were monitored constantly by surgeon[4].

CONCLUSION :

From this study it is proved that it is better to wait in case with doubtful diagnosis on admission in order to decrease negative appendectomy rates.

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