

Is routine appendicectomy always required after conservative treatment of appendicular lump

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Received: 20-09-2020 / Revised: 19-10-2020 / Accepted: 21-11-2020

Abstract

Background: Routine appendicectomy following successful conservative treatment of appendiceal mass has been practiced since long. However the need of interval appendicectomy after conservative treatment of appendiceal mass in all cases remains controversial. **Objective:** To evaluate the justification of routine interval appendicectomy following successful conservative therapy of appendiceal mass. **Material and Methods:** This study was conducted at the department of general surgery, FAA Medical College, Barpeta, Assam. It was a descriptive study including all those patients who presented with appendicular mass from June 2017 to December 2019. These patients were treated conservatively as well as surgically. Patients who responded to conservative treatment were sent home and were followed for months for any recurrent attack. Patients who did not respond to conservative treatment, were explored after further investigation. Patients who had recurrent attack in the follow up were offered appendicectomy. Epi Info was used for tabulation. **Results:** Total number of the patients included in the study was 463. Among them 62 patients has appendicular lump. Incidence was 13.3%. Most common age group was found to be 21 to 40 years. The study had female preponderance. A total of 9 patient from the group who did not respond to conservative treatment underwent exploratory laparotomy, drainage and appendicectomy at the same setting. 5 patients who had symptoms of recurrent appendicitis on follow up were further investigated and appendicectomy was done on confirmation of diagnosis. **Conclusion:** Conservative management is effective in most of the patients and routine interval appendicectomy after 6-week is controversial. Randomized control trial is needed to study the real need of interval appendicectomy.

Keywords: Appendiceal mass, Conservative management, Appendicular Abscess, Interval Appendicectomy.

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Introduction

Acute appendicitis is one of the most common acute surgical condition of the abdomen in day to day practice. Early operative treatment is the best for decades[1]. However if the presentation is delayed then complication like Appendicular lump may result[2]. Appendicular lump is formed in 2-6% of cases of acute appendicitis if early intervention is not done. Conventional treatment according to Oschner-

Sherren regime, has been practiced over many years as the standard treatment of Appendicular lump[3]. Failure of conservative regime occurs in 2-4% cases, where urgent exploration becomes necessary. Classical management includes conservative management followed by interval appendicectomy following resolution of symptoms[4]. The need for interval appendicectomy has been questioned, with a number of authors adopting an entirely conservative approach without interval appendicectomy [5]. In our hospital conservative management of appendicular lump followed by interval appendicectomy is followed. However the actual fate of the condition following conservative management has not been studied in our set up. There is no actual data to support our management strategy that all appendicular mass requires interval appendicectomy. We do not have true

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incidence of recurrent appendicitis following conservative treatment of appendicular lump. Hence we took up the study to study the need of interval appendicectomy in all cases of appendicular lump in our set up.

Material and Methods

A retrospective study was conducted in our rural tertiary care teaching hospital over a period of 2 years and 6 months from June 2017 to December 2019. A total of 463 patients were admitted with diagnosis of acute appendicitis over this period. Out of which 62 patients were diagnosed as appendicular lump. Patients of all age group and both sexes were included in the study. Patients with generalized peritonitis and septicaemia, patients in whom diagnosis changed afterwards and patients who lost follow up were excluded from the study. Detailed history with clinical examination was done in all patients. Baseline investigations viz. complete blood count, blood sugar

estimation, serum creatinine and Ultrasonography was done in all patients. All the patients with appendicular lump were treated conservatively as per Oschner-Sherren regimen. Laparotomy and drainage had to be performed in 9 cases not responding to conservative treatment and on whom USG showed localized abscess. Rest of the patients responded to conservative treatment and on discharge, they were followed up at 2 weekly interval upto 6 weeks and monthly upto 6 months. If signs of recurrent appendicitis appeared (such as right lower quadrant pain or tenderness with or without fever), CT scans were performed and if diagnosis is confirmed appendicectomy was performed.

Statistical Analysis- Recorded observations were transferred in SPSS (Version 22.0) for analysis. Chi square with Yates correction was used for analysis. P-value less than 0.05 is considered statistically significant.

Results and observations

Table 1: Demographic Details of Study Participants (N=463)

Variables	N	%
Mean Age	32.4±8.4 years	-
Sex	227	49
M		
F	236	51
Appendicular Lump	62	13.3
Hospital Stay (mean)	10±4 days	-

As per table 1 Out of 463 patients admitted for acute appendicitis, 62 patient had appendicular lump. So incidence of appendicular lump was 13.3%. Age range varied from 10 to 76 years with majority in the age

group of 21 to 40 years. Female to male ratio was 1.21:1. Overall length of hospital stay in all cases was between 5 to 12 days with average stay of 6-7 days.

Table 2: Treatment among Patients with Appendicular Lump (N=62)

Variables	Conservative treatment	Appendicectomy	p-value
Appendicular lump	53	9	0.02*
Follow up	48	0	0.11
Recurrent appendicitis	5	0	0.32
Treatment done for recurrent appendicitis	0	5	0.18

As per table 2 a total of 9 patient from the group who did not respond to conservative treatment underwent exploratory laparotomy, drainage and appendicectomy at the same setting which was significant ($p < 0.05$). The remaining 53 patients who responded to conservative approach were discharged. Among the 53 patients, 48 patients were followed up and the remaining did not turn up. Out of the patients who followed up as advised, 5 patients had symptoms of recurrent

appendicitis (such as pain with or without fever, tenderness in the right iliac fossa) on follow up. They presented between 4 weeks to 3 months following treatment. None of them presented with appendicular lump on follow up. All the 5 patients underwent appendicectomy on recurrence.

Discussion

Appendicular mass or plegmon usually develops after an attack of acute appendicitis, which is usually palpable as tender mass in the right iliac fossa. In our study incidence of appendicular lump was 13.3%, which is comparable with other studies[1,2]. Most of the patients presented with appendicular lump were between third and fourth decades. However, the age group varied from 10 to 76 years suggesting that any group is prone to develop lump, but it is common in younger age group [3]. In our study, out of 62 patients with appendicular lump, 9 patients could not be managed with conservative management. So, the success rate of conservative management in our study is approximately 85% which is comparable with other studies [5,6]. Out of the 48 patients who could be followed up, only 5 patients (10.4%) had symptoms of recurrent appendicitis on follow up which is again comparable to other studies [7-9]. which reports recurrent appendicitis after conservative management between 0% to 20%. Jeffery et al performed percutaneous drainage of periappendicular abscess in 20 patients. 18 were successfully treated by percutaneous drainage and antibiotic therapy alone and 2 required surgery because of technical failure of catheter insertion. And they concluded that percutaneous drainage is effective alternative to surgery in selected patients with appendicular abscess.

[10]. Similarly, Yamini et al found 97% success rate with conservative treatment of appendicular abscess [11]. In our study we followed all those patients(n=53) who responded to conservative treatment for 6 months. Recurrent attacks of acute appendicitis occurred in 5 patients. The attacks were mild. These cases underwent appendectomy. They made good recovery. [11]. In our study we followed all those patients(n=53) who responded to conservative treatment including those who developed abscess and were treated with open drainage associated with conservative treatment for eighteen months.

Conclusion

From our study and after reviewing literature, we found strong evidence against routine interval

appendectomy after 6 weeks, in all cases of appendicular lump after initial successful conservative treatment.

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Conflict of Interest: Nil

Source of support: Nil