



## A COMPARITIVE STUDY OF INTERVAL APPENDECTOMY VS CONSERVATIVE MANAGEMENT WITH FOLLOW UP IN APPENDEICEAL MASS

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### ABSTRACT

**Background:** To study the outcome of patients with appendiceal mass on conservative management followed by interval appendectomy against conservative management alone with regular follow up and to evaluate the risks of interval appendectomy. **Materials and Methods:** A prospective study was conducted among 50 patients admitted with the diagnosis of appendiceal mass in the department of general surgery at Chalmeda Ananda Rao Institute of Medical Sciences for 12 months during the period of May 2022 to May 2023. Detailed history was taken and patients were examined clinically and investigations were done. Initially all were treated conservatively as described by Oschner and Sherren regimen. After successful management of appendiceal mass, in group I, patients were advised to come periodically for review or as soon as any recurrence of symptoms appear. Patients with recurrence were admitted and appendectomy was done either by open or laparoscopic procedure. Patients who did not come for review were closely followed up by telephonic conversation and their complaints if any present were recorded. Group II patients were advised to come for interval appendectomy in 6 to 8 weeks. On their readmission they were performed appendectomy either by open or laparoscopic procedure. All were followed up for minimum 6 months for any complication and to assess prognosis. **Results:** In our study the mean age in both groups was 26 to 50 years with majority of the cases being males. Recurrent appendicitis is more common in interval appendectomy group. In group II among 25 patients, 10 developed symptoms of appendicitis. In group I, complication like adhesive obstruction was observed in 2 cases (8%). In group II, the main complications were obstruction 7(28%), enterocutaneous fistula 2(8%). It clearly shows that the morbidity is more i.e., 36% after interval appendectomy, so it is better to go for conservative management with regular follow up and plan for surgery if recurrence occurs. Among two groups, group II patients had long duration of hospital stay than group I patients. **Conclusion:** Based on the results of our study recurrence rate in both interval appendectomy group and conservative management alone group were comparatively less and the complication rate, duration of hospital stay was more in the interval appendectomy group, we conclude it is better to go for conservative management with regular follow up and intervene only when recurrence occur in case of appendiceal mass.

**KEYWORDS :** Appendiceal mass; Conservative management; Open or Laparoscopic Appendectomy.

### INTRODUCTION

Acute appendicitis is the most common surgical emergency which may be complicated by development of an appendiceal mass<sup>1</sup>. The appendiceal mass is formed around that perforated appendix & it consists of inflammatory mass of inflamed appendix, adjacent viscera & greater omentum<sup>2</sup>. Appendiceal mass is more commonly seen in elderly males. The modes of management of appendiceal mass currently under practice are a) immediate appendectomy before the resolution of the mass, b) conservative management with interval appendectomy in 6to 8 weeks c) entirely conservative approach with regular follow up. Conservative management for appendicular mass initially as described by Oschner has so far been followed routinely. Oschner and Sherren regimen includes hospitalisation, bowel rest, broad spectrum antibiotics, hydration & percutaneous drainage of abscess until that mass gets resolved.

Traditionally following conservative management of appendicular mass interval appendectomy (6-8weeks later) is done. The conservative management alone with prolonged follow up without interval appendectomy, substantiate that rate of recurrent appendicitis is low (6-20%). Recurrent episodes exhibit milder clinical course than first episode<sup>3</sup>. Immediate appendectomy following resolution of mass may look like easily feasible, safe, cost effective allowing early diagnosis and treatment of unexpected pathology. But it has higher complication rate of 36% leading to dissemination of infection, intestinal fistula formation with misdiagnosis of malignancy. Sometimes a malignant mass may be mistakenly under treated by appendectomy. Because of these complications this method is not practiced in the present days unless there is no response to conservative treatment. Hence I have restricted my study in the management of appendiceal mass to a prospective comparative study on conservative management followed by interval appendectomy against conservative management alone with regular follow up.

### AIMS AND OBJECTIVES

- To study the outcome of patients with appendiceal mass on conservative management followed by interval appendectomy against conservative management alone with regular follow up.
- To evaluate the risks of interval appendectomy.

### MATERIALS AND METHODS

**Study design:** A Prospective study

**Study place:** Department of General Surgery, Chalmeda Ananda Rao Institute of Medical Sciences, Karimnagar, Telangana.

**Sample size:** 50 cases.

**Study duration:** 12 months (May 2022 to May 2023)

#### Inclusion Criteria

- All patients with clinical findings and investigation reports suggestive of appendiceal mass were included.
- All age group from 13 to 70 years.
- Both male & female patients were included.

#### Exclusion Criteria

- Patients less than 13 years of age and more than 70 years of age.
- Patients with generalized peritonitis.
- Non cooperative patients for regular follow up.
- Patients with comorbidities like diabetes mellitus, end stage liver disease and immunocompromised states.

### METHODS

Detailed history was taken for all the cases and they were examined clinically and later investigations were done. The cases were divided into 2 groups, Group I and Group II. Initially all were treated conservatively as described by Oschner and Sherren regimen. After successful management of appendiceal mass patients, group I patients were advised to come periodically for review or as soon as any recurrence of symptoms appear.

Patients with recurrence were admitted and appendectomy done either by open or laparoscopic procedure. Patients who did not turn up for review were closely followed up by telephonic conversation and their complaints if any present were recorded. In group II patients were advised to come periodically for review or as soon as any recurrence of symptoms appear. Patients with recurrence were admitted and appendectomy done either by open or laparoscopic procedure.

**Data Analysis:** The results were analysed by chi-square test and significance (p value <0.05). The results were computed using SPSS software.

## RESULTS

### Age distribution:

Age	Group		Total
	Group 1 Conservative	Group 2 Interval appendectomy)	
13 to 25	5	4	9
26 to 50	18	19	37
51 to 70	2	2	4
Total	25	25	50
P value	0.834 Not Significant		

The mean age was similar in both the groups i.e., between 26 and 50 and there was no statistically significant difference of age in between both the groups with a p value of 0.834. In group I among 25 patients 18 were male, 7 were female. In group II, 20 were male and 5 were female. There was no statistical significance among sex in both the groups. In group I, among 25 patients 4 had recurrent appendicitis. In group II, 9 had recurrent appendicitis.

### Symptomatology

Symptoms	Group 1 (Conservative)	Group 2 (Interval appendectomy)
Pain	2	7
Vomiting	2	3
Total	4	10

In group I, among 25 patients, 4 developed symptoms of appendicitis. In group II, 10 patients developed symptoms of appendicitis.

### Complications

COMPLICATIONS	Group I	%	Group II	%
Adhesive Obstruction	2	8%	7	28%
EC Fistula	0	Nil	2	8%
Total	2	8%	9	36%

Among 25 cases in group I, 2(8%) developed complications. Among 25 cases in group II, 9 (36%) developed complications.

### Duration of hospital stay

Duration of hospital stay	Group 1 (Conservative)	Group 2 (Interval appendectomy)
Less than 5 days	22	9
5 to 10 days	3	13
>10 days	0	3
MEAN	3.409091	5.22222
PVALUE	0.00001 Significant	

In the conservatively managed group among 25 patients, patients stayed in hospital for less than 5 days were 22 patients and those stayed for 5 to 10 days were 3. In the interval appendectomy group, the patients stayed in hospital for less than 5 days were 9 and 5 to 10 days were 13, more than 10 days were 3. There is a statistically significant difference with a p value of 0.00001.

## DISCUSSION

Early appendectomy is the treatment of choice in acute appendicitis. Once mass has formed the line of management is controversial subject. Current study favours the conservative management of appendicular mass. In the present study, the mean age was similar in both the groups i.e., between 26 to 50 and there was no statistically significant difference of age in between both the groups with a p value of 0.834. In group I among 25 patients 18 were male 7 were female. In group II, 20 were male and 5 were female. There was no statistical significance among sex in both the groups. In group I, among 25 patients 4 had recurrent appendicitis. In group II, 9 had recurrent appendicitis. In group I, complication like adhesive obstruction was observed in 2 cases (8%). In group II, the main complications like obstruction 7 (28%), enterocutaneous fistula 2 (8%). It clearly shows since the morbidity is more i.e., 36% after interval appendectomy it is better to go for conservative management with regular follow up and plan for surgery if recurrence occurs. Among two groups, group II patients had long duration of hospital stay than group I patients with statistically significant p value of 0.00001.

In the study by Majeed et al<sup>1</sup>, the mean duration of hospital stay was significantly longer in patients managed conservatively as compared to those undergoing early appendectomy (2.80±1.54 vs. 1.83±0.83; p=0.004). However, the frequency of perforation was not significantly higher in the conservative group as compared to the early appendectomy group (16.7% vs. 10.0%; p=0.448).

## CONCLUSION

Based on the results of our study recurrence rate in both interval appendectomy group and conservative management alone group were comparatively less and the complication rate, duration of hospital stay was more in the interval appendectomy group, we conclude it is better to go for conservative management with regular follow up and intervene only when recurrence occur in case of appendicular mass.

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