



CLINICAL STUDY OF APPENDICULAR MASS AND ITS MANAGEMENT

Dr. Y.V. Jayaramudu	M.S Associate Professor Dept Of General Surgery, Shanthiram Medical College, Nandyal.
Dr. P Dinesh Chaitanya Raju*	M.S Assistant Professor Dept.Of General Surgery.Shanthiram Medical College, Nandyal.*Corresponding Author
Dr. L. Prahitha	3 rd year post graduate Dept. of General surgery.Shanthiram medical college, Nandyal.

ABSTRACT Acute appendicitis is the commonest cause of Acute surgical abdomen and Appendicular mass has always a challenge to diagnose and to manage. Though many management options are available, discussion /argument still continues regarding the best method to be adopted for each individual patient. To study clinically the various modes of presentation, diagnose right iliac fossa mass accurately, to develop a strategy for an effective appendicular mass. This is randomised study conducted among 50 patients admitted in department of Surgery, Santhiram medical College and General Hospital, Nandyal between NOVEMBER 2020 to JUNE 2022 were studied according to a proforma. Of which 55% of the patients under went conservative management where as 15% underwent extra peritoneal drainage and 30% had mass appendectomy.

KEYWORDS : Appendicular mass, Appendicular abscess, Interval Appendectomy

INTRODUCTION:

- The vermiform appendix is considered by most to be a vestigial organ. Its importance in surgery results from its propensity for inflammation, which results in a clinical syndrome known as acute appendicitis. Acute appendicitis is the commonest cause of "Acute Surgical abdomen" in young adults⁽¹⁾.
- It is the 2nd most common condition as an indication for emergency operation in Santhiram Medical College, Nandyal. First being the peritonitis from various causes.
- Reginald Fitz of Harvard Medical school first described the natural history of the inflammaed appendix coining the term appendicitis^(2,3).
- The frequency of patients with acute appendicitis presenting with a tender mass in the right iliac fossa increases due to the following two reasons-

- (1) late presentation to the clinician and/or
- (2) delayed diagnosis on the part of the clinician.

- The mass presents, usually on the third day (or rarely sooner).
- Perforation and abscess formation are rare in the beginning. After 48hrs of onset of symptoms, it may be as high as 80%⁽⁴⁾.
- Occasionally a walled-off perforated appendix will form an inflammatory mass. Usually, there is a history of 4 or 5 days of pain abdomen⁽²⁾.
- This condition probably is being seen less commonly now as a result of improved health education⁽²⁾.
- 2% to 5% of patients with appendicitis present with a palpable right lower quadrant mass⁽⁵⁾.
- Pathologically it may present as a spectrum ranging from phlegmon to abscess, failure to diagnose properly may lead to the spread of infection and lead to lethal peritonitis.
- Timely surgical intervention and proper judicious use of chemotherapeutic drugs may reduce morbidity & mortality.
- The morbidity and mortality rates in appendicitis are greatly increased when gangrenous perforation causes peritonitis & wound infection following surgery.
- Therefore it is obvious that the aim of the surgeon must be to prevent mortality and morbidity by early diagnosis and performing appendectomy before perforation or gangrene has occurred, or late complications like abscess has formed.

AIMS AND OBJECTIVES

- To study clinically, various modes of presentation of appendicular mass.
- To diagnose appendicular mass accurately from appendicitis and differentiate phlegmon & abscess with improved imaging radiological techniques.
- To study effective management of appendicular mass with improved prognosis by conservative management or early appendectomy.

- To study various complications of appendicular mass managed by, early appendectomy and conservative management.

MATERIALS AND METHODS

- This is a prospective study that was carried out on the patients who attended to casualty and surgical op admitted in surgical ward, in Santhiram Medical College and General hospital, Nandyal. From the above mentioned source 50 consecutive cases were taken.

INCLUSION CRITERIA

- All patients with h/o acute appendicitis with an appendicular mass between 10 to 70 years.
- Both sexes
- All the cases, who underwent interval appendectomy following conservative management.
- Patients who have given written informed consent.

EXCLUSION CRITERIA

- Cases of right iliac fossa mass, other than appendicular mass.
- Patients who underwent emergency appendectomy for acute appendicitis.
- Patients aged 70 years with comorbidities.
- Pregnant women.
- Patients who have not given consent for the study.

RESULTS:

Clinical manifestations

Groups	Manifestation	No. of cases	Percentage
1	Appendicular mass	28	55%
2	Appendicular abscess	8	15%
3	Pain/ vomiting/fever with doubtful clinically palpable mass	14	30%

AGE INCIDENCE:

11-20 – 10 patients (20%)
 21-30 – 16 patients (32%)
 31-40 – 12 patients (24%)
 41-50 – 6 patients (12%)
 >50 -- 6 patients (12%)

Most of the patients presented between 21-40 years.

SEX INCIDENCE:

Male group accounts for 72%, whereas females account for 28%. Male to female ratio is 3:1 in appendicular mass.

TREATMENT MODALITY

Conservative- 55%

Extraperitoneal drainage- 15%
 Appendectomy in early mass presentation-30%

OPERATIVE MODALITY

INTERVAL APPEDECTOMY	44%
APPEDECTOMY IN EARLY MASS ON INDEX DAY OPEN	13%
SURGERY FOR FAILURE OF MASS TO RESOLVE	25%
ABSCESS DRAINAGE WITH APPEDECTOMY	9%
EXTRAPERITONEAL DRAINAGE OF APPENDICULAR ABSCESS	9%

DISCUSSION

- The appendicular mass is the commonest condition presenting to surgical wards, with a history of acute appendicitis.
- Patients presenting lately can go for mass or abscess in 5 to 8% of cases.
- The treatment of appendicular mass is taking a turn from the traditional approach of initial conservative treatment followed by interval appendectomy to immediate appendectomy.
- However this change is not widely accepted, and a large number of surgeons still continue to adopt the same traditional conservative approach.
- The early surgical intervention is known to be an effective alternative to conservative therapy for a long time as it considerably reduces the total hospital stay and obviates the need for a second admission.
- The maximum age incidence was between 21 to 30 years in our study, the next common being to 2nd and 4th decades.
- Okafor et al. said that the common age group is 2nd and 6th decade.
- Ahmed et al. said that common age for appendicular mass is 2nd, 3rd, and 4th decades of life.
- According to RC et al., appendicular mass was more common in 3rd and 4th decades of life.
- In our study the appendicular mass was more common in the 3rd and 4th decade, followed by the 2nd and 5th decades.
- The sex incidence of this study has male to female ratio of 3:1. The standard study ratio is 3:2, according to Ahmed et al., male to female ratio 4.7:1.
- According to Erdogan D et al., Ochsner –sherren regimen for appendicular mass is safe, and interval appendectomy is advisable, which favours our study.
- Erik skoubo-Kristensen et al., conservative management is successful and complication rates are lower than early operative treatment.
- Gahunkamble DB and Gahunkamble D et al., delayed appendectomy seems beneficial for all patients who respond well to the initial management of appendicular mass.
- Deu and Ghosh et al., study favours early operative management of appendicular mass.
- Samuel et al., study suggests surgical intervention was beneficial over non operative management in their cohort of patients.
- In our study conservative management with the Ochsner- Sherren regimen for appendicular mass is safe, followed by interval appendectomy.
- Zarba et al., said that emergency appendectomy with abscess drainage is the mode of treatment for an appendicular abscess with low morbidity and minimal hospital stay.
- Lasson A et al., said that percutaneous aspiration followed by interval appendectomy for an appendicular abscess is the best treatment. Recurrent appendicitis is common if the abscess drainage was done without interval appendectomy. Post operative complications are least in the interval appendectomy, which is comparable to our study
- A complete histopathological examination of the surgical specimen confirmed the accuracy of the clinical diagnosis, showing signs of acute or chronic appendicitis in the case of appendectomy specimens and features of chronic inflammatory changes in the case of specimens taken from the abscess wall.

SUMMARY AND CONCLUSION:

- A study of 50 cases of appendicular mass in right iliac fossa that was conducted in SANTHIRAM MEDICAL COLLEGE AND GENERAL HOSPITAL.
- An analysis of radiological investigations, and other blood

investigations were used to confirm the diagnosis when a clinical diagnosis was in doubt, and these have been presented to stress their importance in diagnosing when a clinical diagnosis was in doubt.

- With this, we would like to stress that clinical examination still remains the most important tool in the diagnosis. As evident by 70% of accuracy in this study.
- One can accurately diagnose the pathology on clinical examination alone in most of the cases inspite of a variety of conditions presenting as a mass in the right iliac fossa.
- It is diagnosed easily if presented with mass in right iliac fossa with h/o pain abdomen, fever, & vomiting.
- The majority of the appendicular masses were managed conservatively, i.e., with standard Ochsner – Sherren regimen and surgery was done only when mass did not resolve or went in for complications.
- Most of our patients responded to conservative treatment. The appendicular abscess was treated by surgical drainage.
- Ochsner- Sherren regime is old, but with invent of new anesthetic techniques, many surgeons suggest early appendectomy in mass.
- In our study majority of patients responded to conservative measures. It is safe to practice it whenever the patient is stable with interval appendectomy after 4-6 weeks, and there was less complication with good post-operative recovery.
- One disadvantage of the above regime is patient should be admitted for monitoring, and when complications arise, the surgeon should be ready to operate, the second disadvantage is that the patient may be lost for follow-up and may not come for interval appendectomy.
- This study is a small one where it is difficult to come to firm conclusions; however, the conclusions were comparable to many international studies. Hence Ochsner–Sherren regime is still the preferred approach in treating appendicular mass.



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