



ORIGINAL RESEARCH PAPER

General Surgery

CLINICAL STUDY AND MANAGEMENT OF APPENDICULAR LUMP IN TERTIARY CARE HOSPITAL

KEY WORDS: Appendicular Lump, Ochsner-Sherren Regime, Appendicectomy, Conservative management, Interval appendectomy.

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ABSTRACT

Background: Acute appendicitis is encountered in 2 – 6% of patients is one of the most common acute surgical condition of the abdomen and appendicular lump is formed in about 3-6% cases if treatment is delayed. The traditional treatment according to Ochsner-Sherren regime of appendicular lump is conservative followed by delayed appendectomy. During conservative treatment 10-20% are not resolved and lead to gangrene or perforation followed by localized abscess or generalized peritonitis requiring early surgical intervention. **Aim:** To evaluate the safety and efficacy of the nonoperative management in patients diagnosed as appendicitis with a palpable mass. **Materials And Methods:** A prospective study was done in AMCH Dibrugarh from august 2021 to august 2022. Total of 56 patients admitted with a diagnosis of appendicular lump was included in our study. An analysis of patients managed for appendicular lump was done. All the patients of both sexes between 13 to 80 years were included. Data has been taken from patients who have given informed consent and Ethical clearance has been taken from Ethical committee. **Results:** Total 282 patients admitted in hospital with diagnosis of acute appendicitis, out of which 56 patients were having appendicular lump, suggestive of prevalence of 19.58%. Age group 21-30 years included more cases. Male to female ratio 2.8:1. Pain was the presenting complaint in all the cases and presentation varied with history of pain 1 day to 5 months. Of 56 patients of appendicular lump, 8 patients had appendicular abscess and 48 patients had appendicular mass. 8 patients of appendicular abscess were treated surgically. Out of 48 appendicular mass patients, 41 were managed conservatively and discharged from hospital after planning for interval appendicectomy after 4-6 weeks, remaining 7 patients underwent immediate appendicectomy. **Conclusion:** Clinical examination still remains the most important tool in the diagnosis of appendicular lump. Radiological investigations are necessary, when there is doubtful palpable mass. We treated patients with standard Ochsner-Sherren regimen and surgery was done when mass didn't resolve or went for complication. Majority of patients responded for conservative measures. So, we concluded that Ochsner-Sherren regimen is still preferred approach in treating appendicular mass.

BACKGROUND

Acute appendicitis is the commonest cause of acute surgical abdomen. Lump is found in 2-6% cases of acute appendicitis. The inflammation in acute appendicitis may sometimes be fixed by the patient's own defense mechanisms, by the formation of an inflammatory mass (an appendiceal phlegmon) or a circumscribed abscess (an appendiceal abscess), often presenting as a palpable mass, days following the onset of symptoms.⁴ This complication occurs in 2 to 7% of all cases of appendicitis. Conventional treatment according to Ochsner-Sherren regime is conservative regime which is popularized as standard treatment of appendicular lump. Failure of conservative regime occurs in 2-4% cases. Management of appendiceal mass and abscess is either operative or conservative. Further substantiation is needed to identify which method is superior.⁵ Immediate appendectomy may be technically demanding because of the distorted anatomy and difficulties in closing the appendiceal stump due to the inflamed tissues. According to the aforementioned, the operation could be finished with colonic resections (ileocectomy or right hemicolectomy).^{6,7,8} Conservative management with interval appendectomy has traditionally remained the gold standard management. The need for interval appendectomy after a successful nonsurgical treatment has recently been questioned as the risk of recurrence is relatively small. The management of the patient with appendicitis and a mass in the abdomen or pelvis is controversial. Some surgeons favour initial nonoperative treatment of appendicitis with antibiotics or extraperitoneal drainage of an abscess, followed by an appendectomy at a later date. Others would advocate performing an appendectomy immediately, and draining the wound as indicated.

Management of an appendicular mass is controversial with three general approaches.

- Classical management involves initial conservative treatment with broad-spectrum antibiotics and intravenous fluid until the inflammatory mass resolves. The patient is then offered interval appendicectomy following resolution of symptoms.
- More recently the need for interval appendicectomy has been questioned, by a number of authors adopting an entirely conservative approach without interval appendicectomy.⁹
- A third approach involves performing immediate appendicectomy during the initial admission prior to resolution of the mass.¹⁰

MATERIALS AND METHODS

A prospective study was done in AMCH Dibrugarh from august 2021 to august 2022. Total of 56 patients admitted with a diagnosis of appendicular lump was included in our study. An analysis of patients managed for appendicular lump was done. All the patients of both sexes between 13 to 80 years were included.

Methods

Patients admitted with abdominal pain, mainly in the right iliac fossa, nausea, fever and having mass in the same quadrant were studied making use of the available facilities in the hospital.

The Method of Study Consists of-

- Detailed history taking and physical examination.
- Abdominal and relevant other examination for systemic evaluation.

- Routine laboratory investigations
- Evaluation of preoperative status and appropriate preparation for surgery.
- Conservative and / or surgical treatment according to merits of case, operative findings, and post-operative course and complications.
- Histopathological correlation, duration of hospital stay and follow-up.

RESULTS

Age	Cases	Percentage
13-20yrs	6	10.71
21-30yrs	22	39.28
31-40yrs	14	25
41-50yrs	8	14.28
51-60yrs	4	7.14
61-70yrs	2	3.57
71-80yrs	0	0

Total 282 patients admitted in hospital with diagnosis of acute appendicitis, out of which 56 patients were having appendicular lump, suggestive of prevalence of 19.58%. Age group 21-30 years included more patients. Male to female ratio was 2.8:1. Pain was the presenting complaint in all the patients and presentation varied with history of pain 1 day to 5 months. Of 56 patients of appendicular lump, 8 patients had appendicular abscess and 48 patients had appendicular mass. 8 patients of appendicular abscess were treated surgically. Out of 48 appendicular mass patients, 41 were managed conservatively and discharged from hospital after planning for interval appendectomy after 4-6 weeks, remaining 7 patients underwent immediate appendectomy.

DISCUSSION

Immediate appendectomy is the accepted remedy for early acute appendicitis, but the management of patients with more advanced stages of this disease, who present with an abdominal mass, remains controversial. In our patients, 19.58% had a palpable mass per abdomen located in right iliac fossa suggestive of appendicular lump. The palpable mass may contain phlegmon, composed of adherent omentum and small bowel loops, or abscesses of various sizes. Elective appendectomy is usually performed six to ten weeks later to prevent the recurrence (10%-20%). Since nonoperative management for palpable periappendiceal mass has been proven to be safe and effective, it serves as a useful comparison group for our present study. Other studies have reported that the nonoperative management for periappendiceal mass is more difficult because of the many variations in the way results are reported. Recent studies report failure rates of 12% or less and complication rates for initial management of 12% or less.^{11,12,13,14} Complication rates for interval appendectomy are more variable, reported to be 3% to 16%. Likewise, recurrent appendicitis rates are quite variable (0% to 20%) depending on the length of follow-up.^{13,14,15,16,17,18} The results we report for patients without periappendiceal mass compare favourably with these results. Emergency surgery has a certain place in the treatment of appendiceal mass and abscess. Higher rates of postoperative complications is the negative side of this method.^{19,20,21} These complications are caused by oedema and the vulnerability of the adjacent small and large intestine, and difficult approach to the appendix due to deformation of anatomic structures and location. Conducting colonic resections (ileocectomy, right hemicolectomy) is sometimes necessary instead of appendectomy due to the acute inflammation and adhesion.^{22,23} The prevalence of this method compared to conservative is due to no need of longitudinal follow-up and repeated hospitalization because of elective operation. This method avoids misdiagnosed cases and promptly deals with any unexpected ileocecal pathology that masquerades as an appendiceal mass.^{24,25}

Clinical examination still remains the most important tool in the diagnosis of appendicular lump. Radiological investigations are necessary, when there is doubtful palpable mass. We treated patients with standard Ochsner-Sherren regimen and surgery was done when mass didn't resolve or went in for complication. Majority of patients responded for conservative measures. So, we concluded that Ochsner-Sherren regimen is still preferred approach in treating appendicular mass.

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CONCLUSION