pISSN 2349-3305 | eISSN 2349-2902

Research Article

DOI: 10.5455/2349-2902.isj20150521

A comparative study of appendicular lump management

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Received: 3 March 2015 Accepted: 22 March 2015

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ABSTRACT

Background: Acute appendicitis is the commonest cause of "acute surgical abdomen". Lump is formed in 2-6% cases of acute appendicitis. Conventional treatment according to Ochsner-Sherren regime is conservative regime which is popularised as standard treatment for appendicular lump. Failure of conservative regime occurs in 2-4% cases. The aim of our study was to develop a strategy for an effective management of appendicular lump.

Methods: Total of 64 patients admitted with diagnosis of or appendicular lump was included in our study over period of 2 years and 6 months. An analysis of patients managed for appendicular lump was done. All the patients of both sexes were included. Patients with Appendicular lump were randomly divided in two groups; group I - conservative management followed by interval appendicectomy after 6 weeks, group II - immediate exploration

Results: Total 598 patients admitted to hospital with diagnosis of acute appendicitis, out of which total 50 patients was having Appendicular lump suggestive of incidence of 10.7%. Age group 21-30 years includes more patients. Average duration of Right Iliac Fossa (RIF) pain was 4 days. Average length of hospital stay in Group I patients was 11 days where as in Group II patients was 4 days. Failure of conservative regime was seen in 2 cases from group I. The complications occurred were mostly pertaining to the wound in group II, one patient developed faecal fistula. There were problems of poor patient compliance, failure of treatment, residual collection/abscess, readmission and failure to locate appendix on delayed appendicectomy in group I.

Conclusions: In our study, early exploration is safe, confirms the diagnosis, removes need for readmission, curative, time saving, reduces cost of management and shorten hospital stay with early return to work.

Keywords: Appendicular lump, Ochsner-Sherren regime, Appendicectomy

INTRODUCTION

Acute appendicitis is the commonest cause of "acute surgical abdomen". The best treatment of acute appendicitis is emergency appendicectomy. If the treatment is delayed then complications like Appendicular lump can result. Delayed diagnosis changes the uncomplicated simple acute appendicitis into complicated appendicitis. Appendicular lump is formed in 2-6% cases of acute appendicitis, if appendicectomy is not done. The Appendicular mass is more commonly seen amongst elderly males.

Lump forms after 48-72 hours of first symptoms of acute appendicitis. Lump develops when appendicitis is caused by obstruction of the lumen and there is danger of perforation of appendix following ischemic necrosis and gangrene of the appendicular wall.⁵

Conventional treatment according to Ochsner-Sherren regime, popularised by Oschner has been practised over many years as the standard treatment for the Appendicular lump. Failure of conservative regime occurs in 2-4% cases(upto 10% cases), where urgent exploration is essential. Conventional treatment is

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favoured sometimes because it can avoid potential complications like damage to caecum and the development of faecal fistula. Conservative management can be done with success rate of 88-95%. As there is high rate of recurrence of appendicitis and lump formation after conservative treatment, interval appendicectomy is essential. Pathologies like caecal malignancy and ileocaecal tuberculosis can mimic acute appendicitis. 10,11

In modern era where facilities and expertise for laparoscopic surgery and anaesthesia facilities are available, early exploration of appendicular mass is recommended, this shortens the hospital stay, cures and diagnoses disease and eliminate need for second hospital admission with no added morbidity and mortality. ^{13,14}

METHODS

A retrospective study was conducted in a tertiary care teaching hospital over the period of 2 years and six months. A total of 598 patients were admitted over this period with diagnosis of acute appendicitis. Out of which 64 patients were diagnosed with appendicular lump.

Patients of all age group and both sexes were included. Patients with generalised peritonitis and septicaemia, patient whose diagnosis changed afterwards and patients who lost intended follow up were excluded from study. Detailed history taking, thorough clinical examination, required laboratory investigations e.g. completed blood counts, ESR, random blood sugar, serum creatinine, serum electrolytes and radiological investigations e.g. plain X-ray and ultrasound of abdomen.

Patients were randomly divided in two groups of 32 each, out of which group I was managed conservatively as per Ochsner-Sherren regime followed by interval appendicectomy after 6 weeks and group II was managed with immediate surgical intervention.

RESULTS

The results of our study are as per tables 1 to 5. In group I, conservative treatment was successful in 30 patients (93.75%), in 2 patients there was failure of conservative treatment and they were subjected to immediate exploration (6.25%), rest of the patients eventually undergone appendicectomy after 6 weeks. One patient from group II developed faecal fistula after surgery was successfully managed conservatively.

31 patients in group II were discharged within 6 days (96.87%). Most of them (68.75%) were discharged within 3 days of admission to hospital. Where as in group I, only 8 patients discharged within 6 days (25%), rest were required stay for more than a week.

Table 1: Age incidence.

Age (years)	Number (n)	Percentage (%)
Upto 10	0	0
11-20	15	23.44
21-30	23	35.94
31-40	16	25
41-50	5	7.81
51-60	4	6.25
More than 60	1	1.56

Table 2: Gender distribution.

Gender	Group I		Group II		Total	
Gender	Number	Percentage	Number	Percentage	Number	Percentage
Males	20	62.5	22	68.75	42	65.63
Females	12	37.5	10	31.25	22	34.37

Table 3: Duration of onset of RIF pain on admission.

Group I		Group II		Total		
Days	Number	Percentage	Number	Percentage	Number	Percentage
≤2	2	6.25	3	9.375	5	7.81
3	9	28.13	8	25	17	26.56
4	11	34.37	12	37.5	23	35.94
5	8	25	6	18.75	14	21.88
≥6	2	6.25	3	9.375	5	7.81

Table 4: Operative findings (n=34).

Operative finding	Number	Percentage
Appendicular phlegmon	19	55.88
Gangrenous appendicitis	9	26.47
Appendicular abscess with perforation of appendix	6	17.65

Table 5: Length of hospital stay.

Hospital	Group I		Group II		Total	
stay	Number	Percentage	Number	Percentage	Number	Percentage
≤3 days	0	0	22	68.75	22	34.38
4-6 days	8	25	9	28.13	17	26.56
≥7 days	24	75	1	3.12	25	39.06

DISCUSSION

Appendicular mass or phlegmon usually develops after an attack of acute appendicitis, which is usually palpable as tender mass in right iliac fossa and varies from a mass/phlegmon to an abscess formation. ¹⁵ In our study incidence of the appendicular lump was 10.7%, which is comparable with other authors' study. ³⁻¹³

Most cases were reported in age group 21-30 years (35.94%) and male:female ratio of 1.91:1, which is comparable with other studies. ^{13,14} 23 patients (35.94%) were having onset of right iliac fossa pain since 4 days, however onset of right iliac fossa pain ranges between 2-15 days.

There was failure of conservative treatment in 2 patients from group I, then subjected to immediate exploration. Per-operative picture of mass/phlagmon was seen in 55.88% patients whereas gangrenous appendicitis seen in 26.47% and perforated appendix with abscess seen in 17.65%, as per literature. ¹⁶⁻¹⁸

In group II patients managed with early exploration of appendicular lump, hospital stay was shorter upto 3 days in 68.75%, 4-6 days in 28.13% cases where as only one patient (3.12%) developed faecal fistula required more than 2 weeks stay and successfully managed conservatively. Early exploration removes need for readmission, safe, time saving, economical and facilitating an early return to work. 14,17-18

CONCLUSION

Patients of appendicular lump managed conservatively by Ochsner Sherren Regime were having prolonged hospital stay than patients managed by early exploration. In our study, early exploration is safe, confirms the diagnosis, removes need for readmission, curative, time saving, reduces cost of management and shorten hospital stay with early return to work.

Funding: No funding sources Conflict of interest: None declared Ethical approval: Not required

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DOI: 10.5455/2349-2902.isj20150521

Cite this article as: Patel BJ, Patel KH. A comparative study of appendicular lump management. Int Surg J 2015;2:235-8.