

COMPARATIVE STUDY BETWEEN IMMEDIATE SURGICAL AND CONSERVATIVE MANAGEMENT OF APPENDICULAR LUMP

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ABSTRACT

Background: In the present scenario acute appendicitis is the most common cause of acute surgical abdomen. The operative procedure of choice is appendicectomy for non- complicated appendicitis. Delayed case scenario of appendicitis cause lump formation reported among previous studies. The long-established treatment for an appendicular lump that is a conservative treatment followed by interval appendicectomy still a very popular procedure among surgeons. **Methods:** In the present retrospective study, we enrolled 40 patients who had an appendicular lump and randomly divided them among two groups, Group 1 included patients with conservative treatment which followed by interval appendicectomy after 6-8 weeks and group 2 included patients with immediate surgery. **Results:** In the present retrospective study, we found that the highest incidence of the appendicular lump was reported among the age group of 21-30 years. The average duration of hospital stay was 11 days in groups 1 and 5 days among patients of group 2. In the present study, we found immediate surgery was a better management plan for appendicular lump which result in lesser duration of hospital stay, lesser economic burden, no chances of readmission to the hospital and no reported major complication during follow-up. **Conclusions:** Early exploration for appendicular lump is a preferred option rather than conservative treatment followed by interval appendicectomy.

Keywords: Appendicitis, Appendicular lump, Management

INTRODUCTION

Acute appendicitis is the most common cause of acute pain abdomen. (1,2) Appendicitis is classified into complicated and uncomplicated types. The standard treatment plan for uncomplicated appendicitis is immediate appendicectomy. Appendicular lump formation occurs in 2-6% cases of appendicitis because of the self-defense mechanism of the body to localize the infection in the peritoneal cavity due to delayed presentation of the patient. (1)

Lump formation is more common in extremes of age (children and old age). (3) Appendicular lump may further complicate to appendicular perforation, abscess formation, necrosis and gangrene of appendix or caecum wall. The long-established

treatment for an appendicular lump that is the conservative treatment followed by interval appendicectomy still a very popular procedure among surgeons. But the early exploration of the appendicular lump is a better choice in the present scenario because of less overall hospital stay, the low economical burden with no added major complication.

METHODS

Over a period of one and a half years, this retrospective study was conducted in the tertiary level hospital. During this period (January 2018 to December 2018) total, 360 patients were admitted in a general surgery ward with a diagnosis of acute

appendicitis. 40 patients out of these 360 patients were diagnosed as appendicular lump formation.

The diagnosis was made after a detailed clinical examination, routine blood investigation, and ultrasonography of the whole abdomen. Our study was conducted with these 40 patients, which include all age and sex groups.

All 40 patients were divided randomly in two groups, 20 patients in each. Group 1 patients were managed by conservative treatment followed by interval appendicectomy after 6-8 weeks. Group 2 patients were managed by immediate surgery (appendicectomy).

RESULTS

The results are based on data of these 40 patients' treatment and outcome. Aim of our study was making a better management plan for appendicular lump.

Table 1: Incidence of age.

| Age (in years) | No. of patients | % of patients |
|----------------|-----------------|---------------|
| ≤10 | 1 | 2.5% |
| 11-20 | 10 | 25% |
| 21-30 | 16 | 40% |
| 31-40 | 10 | 25% |
| 41-50 | 2 | 5% |
| 51-60 | 1 | 2.5% |
| ≥61 | 0 | 0% |

Table 2: Gender distribution.

| Gender | Group 1 | Group 2 | Total |
|--------|---------|---------|----------|
| Male | 11 | 13 | 24(65%) |
| Female | 10 | 6 | 16 (40%) |

Table 3: Per-operative findings.

| Operative finding | Total | Percentage |
|-------------------------|-------|------------|
| Appendicular phlegmon | 24 | 60% |
| Appendicular gangrene | 10 | 25% |
| Abscess and perforation | 6 | 15% |

Table 4: Duration of hospital stay.

| Duration (days) | Group 1 | Group 2 |
|-----------------|----------|----------|
| ≤3 | 0 (0%) | 4 (20%) |
| 4-6 | 5 (25%) | 15 (75%) |
| ≥7 | 15 (75%) | 1 (5%) |

19 patients (95%) of group 2 discharged within 6 days of admission to the hospital. 20% of patients of group 2 discharge in 3 days. Only one patient (5%)

needed longer stay in the hospital because of Wound Sepsis develop after surgery. The average hospital stay in group 2 was only 5 days while the average hospital stay in group 1 was 11 days.

DISCUSSION

Lump formation is more common in extremes of age (children and old age). (3) Appendicular lump may further complicate to appendicular perforation, abscess formation, necrosis and gangrene of appendix or caecum wall. The long-established treatment for an appendicular lump that is a conservative treatment which followed by interval appendicectomy still a very popular procedure among surgeons. But the early exploration of the appendicular lump is a better choice in the present scenario because of less overall hospital stay, the low economic burden with no added major complication. The incidence of appendicular lump formation in acute appendicitis patients in our study was 11.11% which is comparable to the available literature. (2,4,5) The main cause of lump formation was delayed presentation of the patient. Maximum patients in our study belong to young (21-30 years) age group 40%. The male to female ratio was 1.5:1. These results are comparable to other studies. (3,4)

In the present study, the results are based on data of these 40 patients' treatment and outcome. Aim of our study was making a better management plan for appendicular lump.

Maximum patients of group 2 operated successfully without any complication and discharged within 6 days, 19 patients (95%) were discharged within 6 days. In the first group, 75% of patients stayed in the hospital for more than 6 days and 25% of patients were discharged within

6 days. Immediate surgery (appendicectomy) is a better way of management for an appendicular lump in terms of less hospital stay, the less economic burden of treatment, early return to work with no major complication. These results are comparable to other studies.(4-9)

In this study appendicular phlegmon was the most common (60%) finding during surgery followed by gangrene. (5-8)

CONCLUSION

Early exploration for appendicular lump is a preferred option rather than conservative treatment followed by interval appendicectomy. Overall hospital stay and economic burden of treatment are much less as compare to traditional management.

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