

## ORIGINAL RESEARCH

# Operative And Conservative Management Of The Patients Having An Appendicular Lump-Our Experiences

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### Abstract

**Background:** The present study was conducted for evaluating results of operative and conservative Management of the patients having an appendicular lump.

**Materials & methods:**60 patients diagnosed to be having appendicular lump formation were enrolled. Confirmation of the diagnosis was done on the basis of detailed clinical examination, biochemical profile, hematological examination and radiological findings. Random division of these 60 patients was done into two study groups with 30 patients in each group as follows: Group 1: Patients treated with conservative treatment, and Group 2: Patients treated with immediate surgery (appendicectomy). Outcome was recorded. All the results were recorded in Microsoft excel sheet and was subjected to statistical analysis using SPSS software. Chi-square test was used for evaluation of level of significance.

**Results:** Mean age of the patients of group 1 and group 2 was 28.3 years and 29.1 years respectively. Majority proportion of patients of both the study groups were males. Among the patients of group 2, Appendicular phlegmon, Appendicular gangrene and Abscess/ perforation was the intraoperative findings in 50 percent, 33.33 percent and 16.67 percent of the patients respectively. Mean duration of hospital stay among patients of group 1 and group 2 was 7.2 days and 3.2 days respectively. Significant results were obtained while comparing the mean duration of hospital stay among patients of group 1 and group 2.

**Conclusion:** Rather than conservative therapy, surgical therapy for appendicular lumps is the preferable course of action.

**Key words:** Appendicular Lump, Appendicitis

### Introduction

Lump formation after acute appendicitis is as a result of walled off perforation of appendix. Lump can be an inflammatory mass consisting of inflamed appendix, adjacent viscera, and greater omentum or a pus containing appendiceal mass. Although management of acute appendicitis is primarily surgical, management of appendicitis with lump is controversial for more than a century now. Ochsner introduced the conservative treatment for fear of dissemination of infection with surgical intervention. McPherson and Kinmonth reported that non-operative management of appendicitis with tumor formation achieved a 76% success rate and 0.8% mortality rate.<sup>1- 3</sup>The standard treatment which was introduced by Ochsner in 1901 advocating a conservative regimen (nil by mouth, intravenous antibiotics, bed rest and watchful observation) has proved popular over the years and has been shown to be safe and effective.<sup>4</sup> It allows the acute inflammatory process to subside in more than 80% of cases before interval appendicectomy (I.A) is performed some 8-12 wk later. However, some management issues of appendiceal mass such as the need for I.A after successful conservative treatment, and emergency appendicectomy for a 'hot' appendix mass have recently surfaced with no general consensus or agreement on the appropriate line of management.<sup>5- 7</sup> Hence; the present study was conducted for evaluating results of operative and conservative Management of the patients having an appendicular lump.

### Materials & methods

The present study was conducted for evaluating results of operative and conservative Management of the patients having an appendicular lump. A total of 315 patients who were admitted with the confirmed diagnosis of acute

appendicitis were enrolled. Complete demographic and clinical details of all the subjects was obtained. Out of these 315 patients, 60 patients were diagnosed to be having appendicular lump formation. Confirmation of the diagnosis was done on the basis of detailed clinical examination, biochemical profile, hematological examination and radiological findings. Random division of these 60 patients was done into two study groups with 30 patients in each group as follows:

Group 1: Patients treated with conservative treatment

Group 2: Patients treated with immediate surgery (appendicectomy)

Outcome was recorded. All the results were recorded in Microsoft excel sheet and was subjected to statistical analysis using SPSS software. Chi-square test was used for evaluation of level of significance.

**Results**

Mean age of the patients of group 1 and group 2 was 28.3 years and 29.1 years respectively. Majority proportion of patients of both the study groups were males. Among the patients of group 2, Appendicular phlegmon, Appendicular gangrene and Abscess/perforation was the intraoperative findings in 50 percent, 33.33 percent and 16.67 percent of the patients respectively. Mean duration of hospital stay among patients of group 1 and group 2 was 7.2 days and 3.2 days respectively. Significant results were obtained while comparing the mean duration of hospital stay among patients of group 1 and group 2.

**Table 1: Demographics details**

Variable		Group 1		Group 2	
		Number	Percentage	Number	Percentage
Age group (years)	Less than 40	16	53.33	18	60
	More than 40	14	46.67	12	40
Gender	Males	19	63.33	17	56.67
	Females	11	36.67	13	43.33

**Table 2: Comparative variables**

Comparative variables		Group 1		Group 2		p-value
		Number	Percentage	Number	Percentage	
Operative findings	Appendicular phlegmon	-	-	15	50	-
	Appendicular gangrene	-	-	10	33.33	
	Abscess and perforation	-	-	5	16.67	
Duration of hospital stay (days)	Less than 3	0	0	19	63.33	0.001 (Sig)
	3 to 6	8	26.67	10	33.33	
	More than 6	22	73.33	1	3.33	

**Discussion**

One of the most common acute surgical diseases is acute appendicitis. The patient's own defense systems may occasionally resolve the inflammation in acute appendicitis, resulting in the creation of an inflammatory mass (appendiceal phlegmon) or a confined abscess (appendiceal abscess), which frequently manifests as a palpable mass days after the beginning of symptoms. In two to seven percent of all instances of appendicitis, this complication arises. There are two approaches to managing appendiceal mass and abscess: surgical and conservative. More proof is required to determine which approach is better.<sup>6-9</sup> Because of the twisted architecture and the inflammatory tissues that make it difficult to close the appendiceal stump, an immediate appendectomy may be technically challenging. Colonic resections may be used to complete the procedure, following the aforementioned.<sup>10, 11</sup> 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.<sup>12, 13</sup> Hence; the present study was conducted for evaluating results of operative and conservative Management of the patients having an appendicular lump. Mean age of the patients of group 1 and group 2 was 28.3

years and 29.1 years respectively. Majority proportion of patients of both the study groups were males. Among the patients of group 2, Appendicular phlegmon, Appendicular gangrene and Abscess/ perforation was the intraoperative findings in 50 percent, 33.33 percent and 16.67 percent of the patients respectively. The results of two treatment methods of appendiceal mass and abscess: emergency surgery and conservative treatment with and without interval surgery was compared in a previous study conducted by Demetrashvili Z et al.<sup>14</sup> Patients with the diagnosis of appendiceal mass or abscess were enrolled in this study. The patients were assigned into two groups: the emergency surgery group and the conservative management group. The conservative management group was subdivided into two groups: interval surgery group and the ambulatory follow-up observation group without interval surgery. Comparison of the emergency surgery group and interval surgery group revealed that the interval surgery group was characterized by shorter operation time, a smaller number of postoperative complications and also shorter postoperative hospital stay. In the ambulatory follow-up observation group, recurrence of appendicitis developed in 3 (13%) patients. US or CT-guided PCD was performed in all 3 patients on the conservative treatment stage. Comparing the interval surgery and recurrent appendicitis groups revealed statistically significant difference: operation time as well as postoperative hospital stay were shorter in recurrent appendicitis group. In 3 (4.1%) patients, the cause of the appendiceal mass was caecal cancer (2 cases) and Crohn's disease. Conservative treatment without interval surgery seems to be the preferred method for treatment of appendiceal mass and abscess.<sup>14</sup> Mean duration of hospital stay among patients of group 1 and group 2 was 7.2 days and 3.2 days respectively. Significant results were obtained while comparing the mean duration of hospital stay among patients of group 1 and group 2. In a previous study conducted by Agarwal VK et al, authors compared the results of immediate surgical versus conservative management. 52 patients having appendicular lump randomly divided in two group, Group 1 conservative treatment followed by interval appendectomy after 6-8 weeks and group 2 immediate surgery. Highest incidence of appendicular lump was found in age group of 21-30 year. Average hospital stay in group 1 was 12 days as compare to 4 days in group 2. Immediate surgery in their study suggested better management plan for appendicular lump in term of less hospital stay, less economic burden, no need of readmission in hospital and no major complication.<sup>15</sup> Malik AA et al evaluated the efficacy of interval appendectomy versus no appendectomy. Of 763 patients with acute appendicitis some 220 patients had lump formation (28.8%). Median age was 28 years. Conservative treatment was successful in 213 (96.8%) patients. The rate of recurrence was 13.1%, all occurring within six months after the index admission. Mean follow-up was 26±18 months. Conservative treatment of appendicitis with lump formation is efficient and comparatively recurrence rate is low, but in terms of hospital stay and in other co morbid condition of the patients, it would be advised to take surgical treatment for betterment of patients. All in all it is the decision of surgeon at that time when patients were gone to treat appendicular lump.

### **Conclusion**

Rather than conservative therapy, surgical therapy for appendicular lumps is the preferable course of action.

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