



COMPARISON OF EARLY APPENDECTOMY VERSUS CONSERVATIVE MANAGEMENT FOR APPENDICULAR LUMP AT TERTIARY CARE HOSPITAL.

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ABSTRACT... Objectives: The purpose is to compare two options of management of appendicular lump in order to sort out the better one for the benefit and betterment of populace. **Study Design:** Cross Sectional study. **Setting:** Peoples Medical College Hospital Nawabshah. **Period:** 2016 August to August 2018. **Material & Methods:** Total 50 patients of appendicular lump were included in this research. All patients were divided into 2 groups. Group 1 included those patients undergoing emergency appendectomy. They were admitted, optimized and the required treatment was initiated. **Results:** Of total 50, 30(60%) were male and 20(40%) were females. Age was between 14 to 51 years. All patients presented with different clinical presentations. Pain in RIF was in 42(84%) patients whereas 47(94%) patients presented with lump in RIF. 20(40%) patients were operated for appendectomy in emergency and 5(10%) patients for right hemi-colectomy. Histopathological diagnosis was inflammation in 24(48%) patients and 1(2%) resulted in cecal tumor. Infected wound was found in 15 (30%) patients, hematoma in 3 (6%), wound dehiscence in 1(2%) and also cecal fistula in 1 (2%). **Conclusion:** Conservative treatment is better option to treat appendicular lump with least negative results.

Key words: Appendicular Lump, Appendectomy, Cecal Fistula, Right Hemicolectomy.

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INTRODUCTION

Since the discovery of “acute appendicitis”, its diagnosis has been perturbing the surgical faculty throughout the world. Clinical history, physical examination, biochemical and radiological investigations and also the introduction of multiple scoring systems are still quite insufficient to make accurate diagnosis in this context.¹ It is still the most common surgical emergency recorded into emergency department of the hospitals around the world. Only 2-10% of patients present with appendicular lump. The lump is formed when the omentum walls off the inflamed appendix. When the perforated appendix is walled off, it usually presents as wide pathological spectrum ranging from inflammatory mass to localized abscess that later on can convert into localized peritonitis to generalized one.^{2,3}

It poses the risk to life of both genders with varying proportions. The lifetime risk for males

and females is 8.6% and 6.7% respectively. Contradictory to this is the risk of appendectomy which is higher in females as compared to males.⁴ The risk for undergoing appendectomy for female is 12% and male 23%. Of all cases of acute appendicitis, 3.8-5% complains of developing enclosed inflammatory mass which, on certain criteria, is called phlegmon.⁵

The presentation of patients suffering from appendicular lump is the painful lump in RIF, anorexia, Nausea/vomiting and elevated temperature. An examination detects the palpable mass in RIF which is confirmed by Ultrasound of Abdomen and CT scans wherever it is necessary. In tertiary care hospitals in developing countries, ultrasound is commonly used as diagnostic tool for this disease assuring the diagnosis of 70% cases.^{6,7}

Evidence is found that the frequency and

prevalence of enclosed inflammation is continuously increasing due to the treatment of acute appendicitis on antibiotics as first line therapy. Conservative treatment shows 73% success rate but there is risk of recurrence among 50% patients which is the etiological factor for developing complicated appendicitis. Conservative management was unveiled by Ochsner in 1901.⁸ This regimen keeps the patients NPO, antibiotics use and bed rest and monitoring of the clinical features for few days. 80% of patients respond on this therapy and they are called on after 8-12 weeks for interval appendectomy.⁹

Till today, there are no standardized management guidelines for complicated acute appendicitis. A lot of difference has been found among the consultants and registrars regarding the treatment of acute appendicitis. Recent study published has indicated that conservative treatment has caused fewer complications as compared to early appendectomy.¹⁰

The rationale of our study is to compare two management options for appendicular lump in order to find the better option for the sake of benefit of the patients and to decrease morbidity and mortality of the patients.

MATERIAL & METHODS

This research regarding the management of appendicular lump was conducted at surgical department of PMCH Nawabshah for the period of 2 years from 2016 August to August 2018. This study was conducted on 50 patients with diagnosis of appendicular lump. Total 250 patients were admitted with diagnosis of acute appendicitis. History and physical examination was done. In history, age, sex, main symptoms along with duration, heart rate and the temperature at the time of admission was noted. Examination of abdomen shows palpable lump in RIF. Ultrasound of abdomen and CT scan in selected patients were gotten and found appendicular lump among 50 patients that were selected for the study. Two groups were formed. Group 1 included 25 (50%) and Group 2 having 25 (50%) patients. Routine investigations were done and leucocytosis was

found in most of the patients. Group 1 was treated with early appendectomy and Group 2 was treated conservatively. Results were made according to Ochsner regime, complications of surgery and duration of hospital stay.

RESULTS

Total 50 patients included in this study. Of all, 30(60%) were male and 20(40%) were females. Age was between 14 to 51 years. All patients presented with different clinical presentations. Pain in RIF was found among 42(84%) patients whereas 47(94%) came with lump in RIF. Nausea and vomiting was the symptom among 27(54%), fever in 35(70%), diarrhea in 7(14%), constipation in 8(16%), tenderness in RIF in 42(84%), heart rate from 92 to 110 beats per minute in 33(66%) and increased WBCs in 48(96%) patients.

Sr. No	Clinical Features	No of Patients	Percentage
1	Pain in RIF	42	84%
2	Lump in RIF	47	94%
3	Nausea and vomiting	27	54%
4	Fever	35	70%
5	Diarrhea	7	14%
6.	Constipation	8	16%
7.	Tenderness in RIF	42	84%
8	Increased HR	33	66%
9	Leucocytosis	48	96%

Table-I

Emergency surgery was performed in Group 1 patients. Appendectomy was done in 20(40%) patients and 5(10%) patients were operated for right hemi-colectomy due to severe inflammation, adhesions and suspicious cecal tumor. Histopathological diagnosis was inflammation in 24(48%) patients and 1(2%) resulted in cecal tumor.

Group 2 was treated conservatively. 20 (40%) patients got relief with 3 to 5 days and were discharged home and called for follow up after 4 to 6 weeks. 5(10%) patients symptoms subsided after a week. 20(40%) were operated for abscess under ultrasound/ CT guided and also open surgery. Remaining did not return as there is possibility of non recurrence of the disease.

The patients of Group 1 developed complications due to emergency surgery performed. Infected wound was found in 15 (30%) patients, hematoma in 3 (6%), wound dehiscence in 1(2%) and also cecal fistula in 1 (2%).

S. No	Complications	Patients	Ratio
1	Wound infection	15	30%
2	Subcutaneous hematoma	3	6%
3	Wound dehiscence	1	2%
4	Cecal fistula	1	2%
5	Total	20	40%

Table-II

Group 2 patients developed complications but with least ratio. Only 20(40%) patients developed abscesses and 3(6%) patients came with recurrence. No other complication was diagnosed in this group.

DISCUSSION

Appendicular lump is the condition with different presentation and having multiple complications. It can damage the appendicular wall leading to perforation forming the mass in RIF. Commonly three ways are to be considered by Surgeon to deal with this condition. Either emergency/interval surgery or conservative methodology is applied by them. Throughout the world, the lump is treated conservatively by particular regimen called Ochsner.¹¹

According to one study, 9 patients out of 23 were undergone US/CT guided percutaneous drainage but in our study, it was done in 20 patients out of 25 totals. In same study, 22 out of 23 responded well on conservative treatment. In our study, same was also found. All patients in our study treated conservatively responded but with some variations. Among 5 patients the response was slow and they got relief from symptoms after 5 days.¹²

The main drawback of conservative treatment is the missing pathologies or hidden other visceral diseases like cecal tumors or Crohn's Disease. So it is essential that these suspicious cases should investigated properly by colonoscopy, barium

enema and CT scan. These investigations are important in patients with age of 40s. In a study, one case of Crohn's disease was found but in our study no any such findings were identified.¹³

Emergency surgery has also the complications with high frequency. These result from the edema of small and large intestine. This is the fact that in some appendicular lumps, colonic resections are done due to the inflammation and edema. In a study, operations of colonic resections in emergency surgery were more as compared to appendectomy. But in our study, the only 10% patients were operated for colonic resection and anastomosis.¹⁴

In one study, complication rate of conservative treatment is lower one to develop abscess or wound infection. But in our study, abscess developed was among 40% patients which were treated under radiological guidance with least complications. But in our study, the wound infection rate in emergency surgery was higher up to 30%.¹⁵

The study conducted by Brown et al showed the increased efficacy of conservative treatment but later on studies conducted by St Peter et al and Mentula et al showed the reduction in efficacy of conservative treatment in case of appendicular lump. But in our study, the conservative treatment is the better with least complications. The demerit of conservative treatment is that patients have psychological trauma of 6 weeks treatment and is continuously worried about the disease and in unaware of the complication to be developed in coming future.¹⁶

CONCLUSION


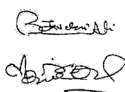



In our study, conservative treatment is considered to be the good one with least negative results and the management option to this is day care procedure to be done under ultrasound or CT guided so that patients may go back early to their home and job also.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author(s) Full Name	Contribution to the paper	Author(s) Signature
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2	Mashooque Ali Khowaja	Critical revision of the article for important intellectual content.	
3	Inayat Ali Zardari	Data collection.	
4	Altaf Hussain Ghumro	Drafting of the article.	
5	Farkhanda Jabeen Dahri	Statistical expertise.	
6	Imtiaz Ali Soomro	Proforma filling.	