ORIGINAL ARTICLE

Management of Appendicular Mass as an Early Exploration Versus Interval Appendicetomy

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ABSTRACT

Aim: To determine the efficacy of early exploration in appendicular mass.
Methods: The present randomized controlled trail study was conducted at General surgical department and Emergency Department of Ghazi Khan Medical College DG Khan and Nishtar Hospital Multan from October 2015 to March 2016. A total of 300 patients with appendicular mass were divided into two groups. 150 patients in group-A were managed by early exploration and 150 patients in group-B were managed by conventional methods. Two groups were compared for efficacy. P value ≤ 0.05 was considered significant.
Results: Wound infection was seen in 12 patients in group-A, 8 patients in group-B, postoperative intra-abdominal abscess was seen in 2 patients in group-A and 3 patient in group-B, shorter hospital stay was noted in 138 patients in group-A and in only 34 patients in group-B. Efficacy of procedure was labeled as YES in 138 patients in Group-B.
Conclusion: The efficacy of early exploration of the appendicular mass is more than conventional method.
Keywords: Appendicular mass; Early exploration; Conventional method.

INTRODUCTION

Acute appendicitis remains the most common intra-abdominal surgical pathology requiring surgical intervention. But 15.8% of the patients present late with appendicular mass[1]. Appendicular mass is common complication of acute appendicitis and its management is controversial worldwide[2]. The management of appendicular mass is changing from traditional approach of initial conservative treatment followed by interval appendectomy to immediate appendectomy[3,4]. Early surgical intervention has been known to be an effective alternative to conservative therapy for a long time, as it considerably reduces the total hospital stay and obviates the need for the a second admission[5]. Moreover, in 10-20% of these cases, conservative management fails and the patients need an emergency operation due to peritonitis, Which is comparatively more difficult and carries more morbidity and mortality[6,7]. In addition, the patient may suffer recurrent appendicitis after being discharged from the hospital[8,9]. In rural areas, a large number of patients refuse an operation once their acute problem is solved and this seems to be a major disadvantage of the initial conservative approach. Another disadvantage of the conservative management is the chance of misdiagnosis of the conditions like carcinoma of caecum, neoplasm of the appendix and ileo-ileal intussusceptions and especially in our step ileo-cecal tuberculosis, which is very common among our population[3,10]. The incident finding of appendiceal neoplasm in appendicular mass has documented to be as high as 28% in patients managed by interval appendectomy and it is therefore recommended for at last elderly patients to undergo colonoscopy or barium enema after recovery from conservative treatment to detect any other underlying disease and to rule out coexistent carcinoma of colon[11]. In my study I will compare the efficacy of early exploration of appendicular mass with the conventional method. As the management of appendicular mass by conservative method followed by interval appendectomy still predominates in most of the hospitals of our country and early exploration is considered as unsafe, this study will not only guide us in the selection of proper management of appendicular mass and in overcoming the controversy about management but will also help us in acceptance of early exploration of appendicular mass, which not only results in early cure of the patient and avoidance of misdiagnosis but is also cost effective in terms of shorter hospital stay.

MATERIAL AND METHODS

The present randomized controlled trail study was conducted at General surgical department and Emergency Department of Ghazi Khan Medical College DG Khan and Nishtar Hospital Multan from

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RESULT

The mean age of the patients in group-A was 26.08 ± 10.6 years and the mean age of the patients in group-B was 25.89±9.43 years (Table 1). Sex distribution is shown in Table 2. Comparison of outcome is shown in table-3. In group A, Intra-abdominal abscess was seen in 1.3% patients and in group B, intra-abdominal abscess was seen in 2% patients. Chi-square test was applied and the difference between the two groups was statistically not significant (Table 4). In group A, shorter hospital stay was seen in 92% patients and in group B, shorter hospital stay was seen in only 22.7% patients whereas, mean hospital stay was 2.44±0.973 days in group A, and mean hospital stay 5.41±1.46 days in group B, Chi-square test was applied and the difference between the two groups was statistically significant (p-value 0.05) (Table 5). Table 6 shows the comparison of efficacy in both groups.

Table 1: Distribution of age

Age (years)	Group-A		Group-B	
	No.	%age	No.	%age
15-25	95	63.3	92	61.3
26-35	32	21.3	42	28.0
36-45	11	07.3	09	06.0
46-55	08	05.3	04	02.7
56-65	04	02.7	03	02.0
Mean + SD	26.08 + 10.06		25.89 + 9.43	
P value	0.545			

Table 2: Sex of age

Gender	Group-A		Group-B	
	No.	%age	No.	%age
Male	89	59.3	02	61.3
Female	61	40.7	58	38.7
P value	0.723			

Table 3: Comparison of outcome of two groups

Wound infection	Group-A		Group-B	
	No.	%age	No.	%age
Yes	12	0.8.0	08	05.3
No	138	92.0	142	94.7
P value	0.355			

Table 4: Comparison of intra-abdominal abscess

Abscess	Group-A		Group-B	
	No.	%age	No.	%age
Yes	02	01.3	03	02.0
No	148	98,7	147	98.0
P value	0.652			

Table 5: Comparison of short hospital stay

Short Hospital stay	Group-A		Group-B	
	No.	%age	No.	%age
Yes	138	92.0	34	22.7
No	12	08.0	116	77.3
P value	0.000			

Table 6: Comparison of efficacy

	Group A	Group B
Yes	138(92%)	34(22.7%)
No	12(8%)	116(77.3%)

P value 0.355

DISCUSSION

The conventional method for the management of appendicular mass is ascher-sherrn regimen followed by interval appendectomy after 4 to 6 weeks and is adopted routinely in the most of the hospitals of our country but this study showed batter results of early exploration of appendicular mass. This randomized controlled trial compared the efficacy of early exploration of appendicular mass against the conventional method. Although, comparing the two groups the results of wound infection and intra–abdominal collection were not statistically significant but results of hospital stay was statistically significant. This study showed higher efficacy of early exploration of appendicular mass 92% compared to the conventional method 22.7%.This was a large randomized, prospective study. Previously, some other authors have not only shown better results of early exploration of appendicular mass but have also shown avoidance of misdiagnosis of the conditions like carcinoma of caecum, neoplasm of the appendix, ileo-ileal intussusceptions and especially in our setup ileo-cecal tuberculosis, which is very common among our population. The frequency of intra-abdominal abscess after early exploration of appendicular mass in my study was 1.3% and 2% among patients who were managed by conventional method showing no statistically significant difference. In another study conducted it was observed that intra-abdominal abscess was found in 2.1% of patients after early exploration[12].In another there was intra-abdominal collection among patients managed by conventional method showing no statistically significant difference[13]. In study by Ali and Rafique intra-abdominal collection was observed in none of the patients of early exploration group and it was noted in 10% of the patients who were managed by conventional method (p-value 0.05) showing no statistically significant difference between the two groups[14].

This study showed much higher efficacy of early exploration of appendicular mass compared to the conventional method 92% against 22.7% showing statistically significant difference in terms of hospital stay in which is shorter in early exploration group. Therefore early exploration of appendicular mass not only results in early cure of the patients and avoidance of misdiagnosis of the conditions like carcinoma of caecum, neoplasm of the appendix, ileoileal intussusception and ileo-cecal tuberculosis but is also cost effective in terms of shorter hospital stay. In our setup where hospitals, resources and manpower are limited and each hospital serves a huge population, shorter hospital stay in early exploration will be very cost effective not only curing the patients in time but other deserving patients will get treatment too.

CONCLUSION

We can conclude that early exploration is a batter and more effective option than conventional method as it confirms the diagnosis, cures the disease obviates the need of a second admission and reduce the cost of management by reducing the hospital stay. There is no difference in postoperative complication in both methods but hospital stay is much shorter in early exploration groups.

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