



## A clinicopathological study of appendicectomy cases in a tertiary care hospital in South India

### KEYWORDS

Acute appendicitis, Open appendicectomy.

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**ABSTRACT** Acute appendicitis is one of the commonest causes of acute abdomen encountered in surgical practice requiring emergency surgery. The gold standard treatment for appendicitis is open appendicectomy. If untreated, it may lead to many clinical complications which may be even fatal. The main aim of this study was to evaluate the clinicopathological spectrum and clinical profile of appendicectomy cases in a tertiary care hospital in South India. A total of 110 cases were included in the study. Most patients presented in second-third decade of life. A slight female predominance was observed in the study and the most common presenting symptom was pain abdomen (99.1%), which was followed by fever (76.4%) and vomiting (56.4%) ( $p < 0.001$ , significant). The frequency of histopathological variety of appendicitis showed higher incidence of acute appendicitis (42.7%) followed by resolving appendicitis (27.27%) and lymphoid hyperplasia (26.36%).

### Introduction :

The vermiform appendix is considered by most to be a vestigial organ; its importance in surgery results only from its propensity for inflammation, which results in the clinical syndrome known as acute appendicitis<sup>[1]</sup>. Acute appendicitis is one of the commonest causes of acute abdomen encountered in surgical practice requiring emergency surgery. It has a life time risk of 6%<sup>[2]</sup>. In the general population it has an incidence of 86 per 100,000 population per year<sup>[3]</sup>. It has been observed that males had higher rates of appendicitis than females for all age groups with an overall ratio of 1.4:1<sup>[4]</sup>. The gold standard treatment for appendicitis is open appendicectomy<sup>[1]</sup>. If untreated, it may lead to many clinical complications which may be even fatal. The main aim of this study was to evaluate the clinicopathological spectrum and clinical profile of appendicectomy cases in a tertiary care hospital in South India.

### Materials and methods :

This study was done at Father Muller Medical College Hospital, Mangalore for a duration of six months from January 2012 to July 2012. A total number of 110 cases who underwent appendicectomy were included in the study. The clinical details, examination findings, laboratory parameters and radiological findings of all patients were charted. Percentage incidence of the histopathological variety of appendicitis was also calculated. Based on histopathological and clinical findings, the appendicitis cases were classified into acute type, subacute, chronic type, resolving appendicitis, and secondary to lymphoid hyperplasia and mucocele. A proforma was used to collect the relevant information. Data was analyzed using the Students' t test, Mann-Whitney U test, Fisher's Exact test and the chi-square test, a P value of  $< 0.05$  was considered significant.

### Results :

A total of 110 cases were included in the study. A slight female predominance was noted in our study with total number of female patients being 56 (50.9%). The age group of

patients ranged from 10-30 years with mean age of patients being 27.2 years. Most common presenting symptom was pain abdomen (99.1%), which was followed by fever (76.4%) and vomiting (56.4%) ( $p < 0.001$ , significant) (Fig 1)

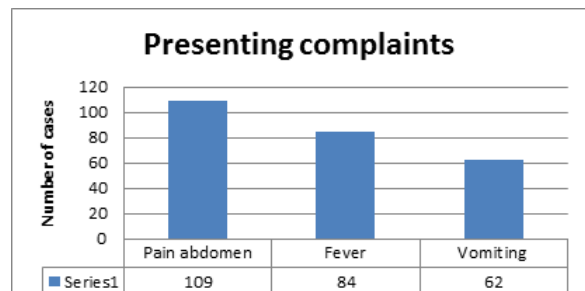


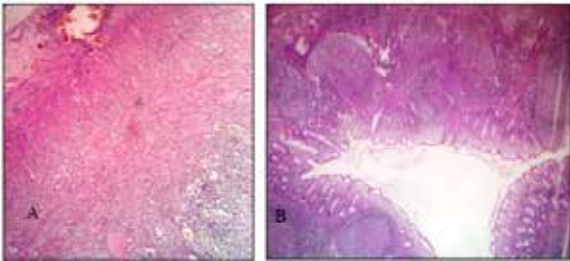
Figure 1

The frequency of histopathological variety of appendicitis (Table.1) showed higher incidence of acute appendicitis (including appendicitis with pinworm infestation and with periappendicitis) (42.7%) followed by resolving appendicitis (27.27%) and lymphoid hyperplasia (26.36%). We found that acute appendicitis occurred more in males (59.57%). However, the peak age of incidence in both sexes was in the third decade of life. The histopathology of acute appendicitis and lymphoid hyperplasia are depicted in Fig 2

**Table 1 (Distribution of cases according to histopathological diagnosis)**

| S.no | Diagnosis                                | Total (%)   |
|------|--|-------------|
| 1    | Acute appendicitis                       | 42 (38.18%) |
| 2    | Acute appendicitis with pinworm          | 2 (1.81%)   |
| 3    | Acute appendicitis with periappendicitis | 3 (2.72%)   |
| 4    | Chronic appendicitis                     | 2 (1.81%)   |
| 5    | Chronic obliterative appendicitis        | 1 (0.90%)   |
| 6    | Lymphoid hyperplasia                     | 29 (26.36%) |

|   |                        |             |
|---|------------------------|-------------|
| 7 | Resolving appendicitis | 30 (27.27%) |
| 8 | Mucocele               | 1 (0.90%)   |
|   | Total                  | 110         |



**Figure 2 : A) Acute appendicitis B) Appendix with lymphoid hyperplasia. H&E 400x**

#### Discussion :

In our study we found a slight predominance of female patients 56 (50.9%) which was comparable to study done by Naveen K et al<sup>[5]</sup> where the female predominance was 51.70% . However, Al-Omran et al<sup>[6]</sup> reported that, appendicitis is more common in males with the higher incidence in the age group of 10-19 years. Also, the most common presenting complaint was pain abdomen which was comparable with other studies. In this study we found that acute appendicitis was the most common histopathological variety of appendicitis followed by resolving appendicitis and lymphoid hyperplasia. In comparison acute appendicitis was most common diagnosis in study by Abudu et al<sup>[7]</sup> and Duduyemi et al<sup>[8]</sup>

#### Conclusion :

The findings of our study were comparable with other studies as mentioned above. We found that there was a slight female predominance and the most common presenting symptom was pain abdomen. The most common histopathological finding was acute appendicitis.

#### REFERENCE

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