



## A REVIEW OF ACUTE APPENDICITIS IN SOUTHERN PART OF ODISHA.

**Dr Ramani Ranjan Mund**

Associate Professor, Department Of General Surgery, MKCG MCH.

**Dr Soumya Ranjan Jena\***

Junior Resident, Department Of General Surgery, MKCG MCH.\*Corresponding Author.

**Dr Tushar kanta Rath**

Junior Resident, Department Of General Surgery, MKCG MCH.

**Dr Kiran Kumar Kar**

Junior Resident, Department Of General Surgery, MKCG MCH

**ABSTRACT**

**Background:** Acute appendicitis is a common problem in early adult life reaching peak incidence in teens and early twenties. Appendicectomy is immediate or emergency procedure to reduce morbidity and mortality. The present study was conducted to find out clinical profile of acute appendicitis, management and complications of appendicectomy.

**Methods:** This observational study was conducted among 200 patients diagnosed as acute appendicitis in OPD and Casualty of MKCGMCH, Berhampur, the main referral hospital of Southern Odisha during the year from SEPTEMBER 2017 to APRIL 2019. The clinical profile like age, sex, symptoms of the patients, management and post-operative complications were recorded.

**Results:** Out of two hundred patients, 65% were male and 35% were female. Nearly 71% of the patients belonged to the age group of 15-30 years. 100% had pain abdomen, 81% had fever and 75% had vomiting. Negative appendicectomy rate was 5%. The post-operative complication was 3%.

**Conclusion:** Acute appendicitis is very common in younger age groups with incidence more in male than female and whenever young patients present with acute abdominal pain may be considered as acute appendicitis. The complications of appendicectomy were less morbid and mostly gives good outcome.

**KEYWORDS :** Appendicitis, Epidemiology, Investigation Modality, Operation, Post operative Complications.

**INTRODUCTION**

The vermiform appendix is considered to be a vestigial organ, its importance in surgery is only due to its propensity for inflammation which results in clinical syndrome known as acute appendicitis. Acute appendicitis is a common problem among older children and young adults<sup>1</sup>. This problem occurs sudden in onset and warrants the patients to seek immediate surgical intervention.

Occasionally the perforation of appendix may produce life threatening situations. Several studies reported male predominance than female. Many patients have typical clinical symptoms like abdominal pain, fever and vomiting (Murphy's Triad). Most of the times Appendicectomy reduces morbidity and mortality.

The lifetime prevalence of acute appendicitis is approximately 7%<sup>2</sup>. The incidence of appendicitis is equal among male and females before puberty. In teenagers and young adults, the male female ratio increases to 3:2 at age 25.<sup>3</sup>

The present study was conducted to find out the demographic profile, common symptoms, management, post-operative complication of acute appendicitis which may help in reducing morbidity and mortality in southern part of odisha.

**METHODS**

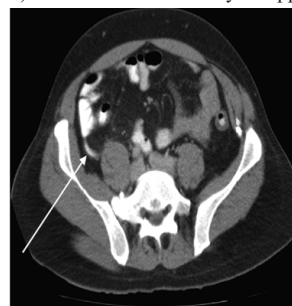
Descriptive study was done at Department of General Surgery, MKCGMCH, BERHAMPUR, ODISHA. 200 Patients with diagnosis of acute appendicitis were taken for the study. Study duration was September 2017 to April 2019.

The study was conducted among randomly selected 200 patients with acute appendicitis diagnosed with the help of clinical examination and other investigation like ultrasonography. The clinical symptoms were recorded, certain demographic profile like age and sex were collected. Out of 200 patients, 170 patients underwent appendicectomy without inversion of stump<sup>4</sup> and followed in the hospital for immediate complication and also followed up for subsequently late complications. Conservative management was done in 20 patients for appendicular lump and for rest 10 patients appendicular abscess was drained and toileting done. All patients have received 5 to 7 days of

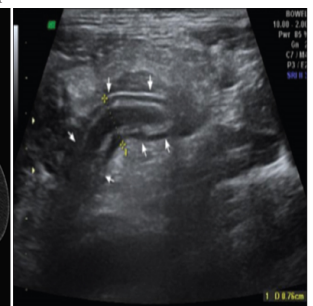
antibiotics, and regular treatment. Appropriate treatment was given wherever complication was noted.

**INVESTIGATIONS**

- 1) CBC
- 2) SERUM- Sodium, potassium, urea, creatinine
- 3) HB<sub>s</sub>AG, ICTC, HCV
- 4) Plain X Ray abdomen
- 5) Ultrasonography
- 6) CT Scan
- 7) Culture and sensitivity for appendicular abscess.



**Fig.1-CT Scan showing Recurrent**



**Fig.2- USG Findings of acute appendicitis**

**RESULTS**

Out of 200 patients, 65% were male and 35% were female. Nearly 71% were belonged to the age group of 15-30 (Table 1). All 200 patients that is 100% had pain abdomen. About 81% had fever and 75% had vomiting (Table 2).

**TABLE-1: Distribution of age and sex of the study population (N=200)**

AGE(years)	Male	Female	Total	Percentage
0-14	6	6	12	6
15-30	86	56	142	71
30-45	33	5	38	19

Above 45	5	3	8	4
TOTAL	130	70	200	100

**TABLE 2: Symptoms of acute appendicitis,(N=200)**

SYMPTOMS	NO. OF PATIENTS	PERCENTAGE
Pain Abdomen	200	100
Fever	162	81
Vomiting	150	75

**TABLE 3: Management (N=200)**

MODE OF MANAGEMENT	NO.OF PATIENTS	PERCENTAGE
Appendectomy	170	85
Drainage of appendicular abscess and toileting	10	5
Conservative(appendicular lump)	20	10

**TABLE 4: Negative appendectomy(N=200)**

Age in years	No. Of patients	Negative appendectomy
1-30	132	8
Above 30	68	2

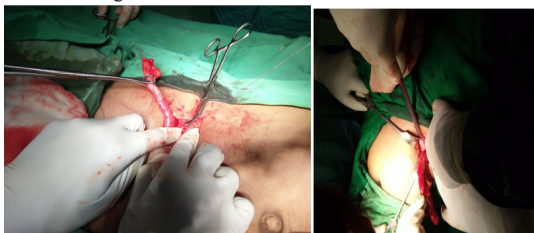
- Negative appendectomy was confirmed after biopsy report.
- Hence, negative appendectomy rate was 5%.

**TABLE 5: Post Appendectomy Complications(N=200)**

TYPES	NO.OF PATIENTS	PERCENTAGE
Wound infection	30	15
Fever	38	19
Adhesive intestinal obstruction	6	3
Recurrent acute appendicitis	18	9
Intra abdominal abscess	4	2

This study noticed that 5% of total cases underwent negative appendectomy. In our study management of acute appendicitis is mainly appendectomy, however appendicular abscess which contribute 5% was managed by drainage of abscess and toileting with antibiotics as per culture sensitivity report, and appendicular lump was managed conservatively which accounts for 10%.

19% of the patients have developed fever postoperatively and may be due to various reasons like urinary tract infection or respiratory tract infections also. Among 18 patients who developed recurrent appendicitis underwent interval appendectomy. All these patients were treated appropriately and discharged in good condition. No delayed complications were observed in follow up of the patients. The mortality was not observed in this study. The E.Coli organisms, pseudomonas organisms were found in wound.

**FIG.3 & 4 - Cases of Acute Appendicitis**

## DISCUSSION

The present study was conducted among 200 patients diagnosed as acute appendicitis and observed that male were more in number (65%) than female(35%) which shows that male predominance in acute appendicitis is one of the notable factor which is similar to 65% in male in a study conducted by Chaudhar YP et al in Maharastra, India<sup>3</sup>.

This study has found out that most of the sufferer were in the age group of 15 to 30 years which is supported by a study conducted by Pralhad Y<sup>3</sup>. The present study has observed that Pain abdomen was in 100%, fever was in 81% and vomiting in 75% of the patients which is almost close to 99%, 76% and 66% respectively, a study conducted by Kamath P et al<sup>5</sup>.

Our negative appendectomy rate(5%) it is slightly lower than study conducted by Guller which is 7%.<sup>6</sup>

Regarding complications, 18% of the patients had postoperative complication and also were mostly due to wound infection, wound gaping, adhesive small bowel obstruction which is little higher to 8% in a study conducted by Jess<sup>7</sup>.

## CONCLUSION

Conclusion may be drawn from this study that incidence of acute appendicitis is higher in younger age group and males in southern part of Odisha. Management is mostly appendectomy and delay in treatment could result in grave complications like intra abdominal abscess and appendicular perforation. Early diagnosis and treatment, therefore, remains the mainstay for acute appendicitis to prevent morbidity and mortality arising consequent upon its complications.

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