



ACUTE APPENDICITIS- OUR EXPERIENCE IN A TERTIARY CARE HOSPITAL (KING GEORGE HOSPITAL), VISHAKHAPATNAM.

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ABSTRACT **BACKGROUND** – Acute appendicitis is one of the most common surgical emergencies experienced by surgeons worldwide. This study was conducted in King George Hospital, Visakhapatnam, in the state of Andhra Pradesh, India. The purpose of this study is to assess the epidemiology, treatment and outcome of appendicitis.

KEYWORDS : Appendicitis, epidemiology, catarrhal, carcinoid.

Introduction -

It has been nearly 110 years since Reginald Heber Fitz was able to consolidate a fragmented surgical philosophy regarding the pathophysiology and treatment of appendicitis with his now famous paper, yet appendicitis continues to be a paradox [1]. Although considered one of the most elemental of general surgical disease processes, its presentation regularly confounds the diagnostic acumen of even the most experienced of surgeons. It is one of the commonest surgical emergencies and is a common cause of abdominal pain in all ages. However, it is often a perplexing diagnostic problem during the early stages of the disease. In many cases, usually during the prodromal phase, its clinical manifestations may be vague and uncertain. Failure to make an early diagnosis is a primary reason for the persistent rate of morbidity and mortality [2, 3 and 4]. Simple appendicitis can progress to perforation, which is associated with a much higher morbidity and mortality, and surgeons have therefore been inclined to operate when the diagnosis is probable rather than wait until it is certain [2].

AIMS AND OBJECTIVES:

The purpose of this study is to highlight the epidemiology, treatment and outcomes terms of morbidity and mortality.

MATERIAL AND METHODS:

This study was conducted at King George Hospital (KGH) in Visakhapatnam, the capital of North Coastal Andhra Pradesh, during the calendar years 2013-2016. KGH is a 1085 bedded tertiary care hospital rendering services to the people of North Coastal Andhra Pradesh and adjacent districts of Orissa and Chhattisgarh. The hospital has a 24 hours casualty department, 20-bedded surgical intensive care unit, several open wards with capacity for around 250 surgical patients, and equipped with two emergency operating rooms [5].

A retrospective study of 603 patients of secondary peritonitis was done over a period of last three years (January 2013-December 2016).

Inclusion Criteria:

All cases found to have acute appendicitis either clinically or by ultrasonography were included in study.

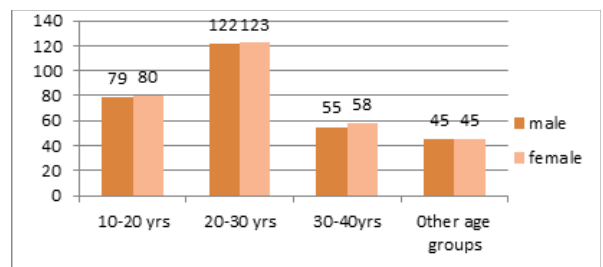
Exclusion Criteria:

Acute appendicitis which are complicated by perforation, mass, abscess and other were not included.

All cases were studied in terms of clinical presentation, radiological evaluation, operative findings, and postoperative course. Data was collected from outpatient department, casualty records, emergency operation theatre, postoperative ward records, and death records. Data includes gender, age, date of admission, date of surgery, date of discharge or death, date of onset, and type of symptoms, presence of guarding, rebound tenderness, or rigidity, abdominal quadrant (s) affected, vital signs on presentation including heart rate, blood pressure, and respiratory rate, operative diagnosis, and surgical procedure.

DISCUSSION AND RESULTS:

Of the 603 cases that were studied, mean age of presentation was 22 years (range from 11 to 69 years) with slight predominance in female 303 (50.58%) and the remaining 298 (49.41%) being females. Majority of the patients 245/603 were in 21-30 years age group (40.63%) followed by 160/603 in 10-20 years age group (26.53%) and 113/603 (18.7%) were in age group 30-40 years and rest of 90 (14.92%) belongs to other age groups. (Bar diagram-1).



Among 603 cases we operated 35 cases (5.8%) have false negative at laparotomy and among them 28 were female and 7 were male. This explains highest predominance of negative appendicectomy among females. These results are comparable with other studies, which also experienced negative appendicectomy with female being the sufferer. Owen et al. (6) involving 215 patients over a 12-month period with similar conclusions. A clinical decision to operate leads to the removal of a normal appendix in 15% to 30% of cases (although the figure may be higher or lower in certain demographic groups) (7). This proportion may be reduced by observing equivocal cases for a period of time, a practice that seems to be safe for most patients (8). Some cases of appendicitis may resolve spontaneously (9, 10). None the less, if a period of observation culminates in the diagnosis of a ruptured appendix, the patient may have suffered a poor outcome that was avoidable. Reductions in the number of "unnecessary" or non-therapeutic operations should not be achieved at the expense of an increase in number of perforations (11). This advent can be overcome by diagnostic laparoscopy which reduces the negative appendicitis cases at the same time improving the early detection of equivocal appendicitis and can prevent complications (8, 9, and 10).

Post operative biopsy of the specimen follow up revealed, among 568 cases of acute appendicitis 421(74.11%) were due to obstructive type, 147 (25.8%) were due to catarrhal type. The most common aetiology for obstructive appendicitis is fecolith followed by foreign body and infestation being less common. We have observed few cases of malignant tumour being the aetiology of appendicitis. Among them cecal malignancy and carcinoid tumour of appendix followed by adenocarcinoma of appendix being the least common cause.

Morbidity in our study is 8.62% (52 cases) comparable with other studies (10, 11). Post operative wound infection, seroma formation, wound dehiscence and fecal fistula are among the main causes. Mortality in this study was found to be 0.3% (2 cases). One case is 65

year old male patient, who is known case of DM, HTN and post CABG patient; succumbed to death in immediate post operatively with myocardial infarction. Second case is a 55 year female with advanced malignancy of carcinoma of cervix succumbed to death due to acute renal failure.

CONCLUSION

Acute appendicitis is by no means an easy diagnosis to make and can baffle the best this is particularly true in the early stages of the disease and it is most common surgical emergency encountered by clinician in emergency department. Despite of its awareness among patients and clinicians , improvement in diagnostic techniques the false negative rate of appendicitis is still high. With early intervention by surgical procedure we can defer the dreadful complications of appendicitis. A failure of early diagnosis can lead to progression of the disease with its attendant morbidity and occasional mortality and with early intervention by the surgical procedure we can defer the dreadful complications of appendicitis.

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