Review of Acute Appendicitis at Civil Hospital, Abbottabad

Pages with reference to book, From 298 To 300

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Abstract

A one year prospective study on 230 patients undergoing surgery for acute appendicitis and its complications was conducted at the Civil Hospital, Abbottabad.
Acute appendicitis proved to be the commonest emergency in that hospital during the, study period (October 1982 - September 1983). It was most often diagnosed in the age group between 20-29 year. There were 2.2 males to one female.
Thirty of 60 patients with duration of symptoms longer than 3 days had generalized peritonitis following appendicular perforation as compared with 15 of 161 patients whose duration of symptoms was 3 days or less. The most common post operative complication was wound infection which was seen in 27% of 45 patients with generalized peritonitis as compared with 6% of the remaining 185. The post operative mortality rate was 4.4% for patients with generalized peritonitis and 0.5% for the rest. Fortyone of 230 appendices removed (18%) were histologically normal. (JPMA 35: 298, 1985).

Introduction

A prospective study was carried out to determine the relative frequency of acute appendicitis, age and sex incidence, duration of symptoms before treatment, and its effect on the outcome.

Material and Methods

Two hundred and thirty patients admitted to Civil Hospital, Abbottabad between October 1982 - September 1983 with a diagnosis of acute appendicitis were studied.
Whenever a patient was admitted to the hospital with a diagnosis of acute appendicitis, he/she was entered into the study. A proforma was completed for age and sex of patient, duration of symptoms before admission to hospital, detailed history of the illness, physical examination, including abdominal examination, leucocyte count, X-Ray of the abdomen, operative findings, post operative course and histopathology of the appendix.

Results

Age and Sex distribution

Out of a total of 230 patients ,there were 158 males and 72 females (Male to female ratio 2.2: 1). The ages of the patients varied between 5 - 75 years, 43% of the patients were between 20-29 years (Table I).

Table I

Age Distribution.

S.No.	Age Group (Yrs)	No. of Patients (%)
1.	<10	14 (6)
2.	10-19	53 (23)
3.	20-29	99 (43)
4.	30-39	31 (14)
5.	40-49	27 (12)
6.	50+	6 (2)
		230 (100)

Relative frequency of acute appendicitis

Table II

Relative Frequency of Acute Abdominal Conditions during the Study Period.

S.No.	Disease	No. of patients
1.	Acute appendicitis	230
2.	Renal colic	115
3.	Acute intestinal obstruction	102
4.	Abdominal Trauma	96
5.	Acute cholecystitis	40
6.	Acute retention of urine	118

Table II shows that acute appendicitis was the most common acute abdominal emergency encountered during the study period.

Mode of Presentation

One hundred and seventy patients had a clinical diagnosis of acute appendicitis, 45 had perforation and generalised peritonitis, 11 had appendicular masses and 4 patients had abscess formation.

Duration of Symptoms before admission to hospital and relation to, complications.

The majority of the patients came to hospital within 3 days of the onset of their ifiness. The incidence of complications was lower in those who came within 3 days of onset of illness, as compared with those who came later (Table III).

Table III

Relationship between the Duration of Symptoms and Complications.

Duration of illness in days	No. of patients	General peritonitis	Abscess formation	Mass formation
Within 3 days	161	15	Nil	Nil
More than 3 days	69	30	4	11

Management

One hundred and seventy Fatients who presented with unperforated acute appendicitis and 45 others who had perforated appendices with generalised peritonitis, were subjected to emergency appendicectomy.

Of the four patients who presented with appendicular abscesses, three had incision and drainage alone, followed by interval appendicectomy after 8-12 weeks. In one patient the appendix was lying free in the abscess cavity and was removed at the time of drainage. Eleven patients with appendicular mass were treated conservatively. Following successful conservative treatment in eight patients interval appendicectomy was performed after 6-8 weeks. In three patients conservative management failed and immediate appendicectomy was required.

All the patients were put on antibiotics post operatively.

Histological Diagnosis

Out of 230 appendices, which were sent for histology, 189 appendices were proved to have acute inflammation, 41 (18%) were normal.

Morbidity

The most common post operative complication was wound infection. Thirteen of 45 patients (27%) with perforated appendices and general peritonitis developed wound infection as compared with 11 of the remaining 185 (6%) who also underwent appendicectomy. Other serious complications were seen only in patients with perforated appendices and generalised peritonitis (Table IV).

Table IV

Postoperative Morbidity.

	Patients with general Peritonitis n = 45	All other patients n = 185
Wound infection	13 (27%)	11 (6%)
Pelvic abscess	1 (2%)	0
Subphrenic abscess	1 (2%)	0
Pyelophlebitis	1 (2%)	0

Two out of 45 patients (4.4%) with generalized peritonitis and one out of the remaining 185 (0.5%) died postoperatively.

Discussion

Acute appendicitis is an ancient disease. Preserved perforated appendices have been revealed in Egyptian mummies. Since the end of 19th Century its incidence has increased progressively and at the present time it is the most common cause of 'acute abdomen' in the West.

The incidence of the disease is less in the East and in African countries where more cellulose is consumed in the diet[1,2]. Africans living in the West however, acquire the same incidence as Caucasians. The important influence of dietary residue on the disease has been further shown by the fact that monkeys in captivity acquire the human liability to this disease[1].

Perhaps acute appendicitis is not as common in this part of the world as it is in the West, but our study shows that it remains the most common cause of acute abdomen in Abbottabad.

Acute appendicitis is a disease of young age with the maximum incidence in the 2nd and 3rd decades[3,4]. Our study confirms this; 43% of our patients were between the ages of 20.29 years. The incidence of the disease decreases below the age of 5 years being very rare below the age of one year, although no age is exempt[2,4]. In our series we had only 14 cases below the age of 10 years, none below

the age of 5 years.
Perforation with generalised peritonitis, localised appendicular abscess formation and appendicular mass were common in patients with a duration of illness longer than 3 days. With the development of complications there was a rise in the post operative morbidity and mortality. For uncomplicated acute appendicitis the mortality rate is no more than 0.1%[5]. This rises to 6% for perforation with generalised peritonitis. In our study we had one death out of 185 patients (0.5%) with a clinical diagnosis of unperforated acute appendicitis, and two deaths in 45 patients (4.4%) with perforation and generalised peritonitis. All these were post operative deaths. A low mortality rate in this study for complicated cases may be due to the fact that we did no have very young patients (less than 5 years oh). It has been shown that the incidence of pe)ration in very young patients (below the age of 3 years) is high and once there is perforation in these infants, the mortality rate rises to 50%[5,6]

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