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CLINICAL PROFILE OF NON-TRAUMATIC ACUTE ABDOMEN AT A TERTIARY CARE HOSPITAL- A RETROSPECTIVE STUDY.

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Abstract

BACKGROUND: Pain abdomen is a common presentation, it accounts for approximately 10% of the cases in emergency room and about 2 -3% of the OPD patients.

METHODS: All non trauma patients presenting with pain abdomen to emergency, above the age of 15 years were included in the study. All diagnosed pregnant females were excluded from the study.

RESULTS: Most common cause of acute abdomen in our study was acute appendicitis followed by acute intestinal obstruction, cholecystitis and nephrolithiasis.

CONCLUSION: Clinicians must consider multiple diagnoses during workup of these patients, those patients who may require surgical exploration should be identified early to limit their morbidity and mortality.

Introduction

Abdominal pain is one of the most common emergencies presenting to emergency department (ED). It constitutes approximately 10% of the cases in the emergency department (1). It is a diagnostic challenge for the emergency physicians as the causes range from benign to life threatening conditions which may include Gastrointestinal, Urological, and Gynaecological among others (2). Although most abdominal pain is benign, as many as 10% of patients in the emergency department setting have a severe or life-threatening cause or may require surgery (3).Many diseases of which, some do not require surgical treatment produce abdominal pain, thus the evaluation of patient with acute abdominal pain must be methodical and careful (4). The elderly patients have atypical presentations with longer duration of pain at presentation (5). Most of the cases of acute abdomen can be diagnosed clinically by the presence or absence of abdominal pain, abdominal tenderness, guarding and rigidity whereas about a quarter of the patients usually remain with a non specific cause, but now with the latest radiological imaging that number has been reduced (6). Our study aims to determine the clinical profile and etiological spectrum of diseases presenting as acute abdomen at the emergency department.

Materials and Methods:

This was a retrospective study conducted at the emergency department of Government Medical College, Jammu after obtaining approval from the Institutional ethics committee. It was conducted during the month of January 2014 to December 2015. All non trauma patients above 15 years of age presenting with abdominal pain to emergency department were included in the study. All diagnosed pregnant females were excluded from the study. After detailed history was taken and thorough clinical examination was done, X ray abdomen and Ultrasonography (USG) was done for all patients. Other radiological and blood investigations were done when required. Oral or parenteral analgesics were given according to severity of pain. The patients were followed up till discharge from ED/admitted ward and the final diagnosis at discharge was noted.

Results

A total of 410 patients were included in the study. Almost half 230 (56%) of the patients were in the age group of 15-30 years while 213 (30%) patients were in the age group of 31-50 years and only 14% were above 50 years of age (table 1). The minimum age of the patient in our study was 15 years and the maximum age was 82 years. The mean age was 32 years. 60% patients were male showing male predominance in our study (table 2). The onset of pain was sudden in 21% of patients whereas the pain was more than 3 days in duration in 79% of the patients (table 3). Comorbid conditions of diabetes mellitus, hypertension, ischemic heart disease, previous abdominal surgery, malignancy and tuberculosis were present in 06%, 05%, 0.8%, 4.5%, 2.8%, and 01% of patients, respectively. (Table 4).Common types of pain included dull aching (56%), colicky (24%), pricking (10%), throbbing (05%), and burning (05%). 40% patients reported lower abdominal pain, while 20% had upper abdominal location whereas the pain was generalized in 20% of patients. Common associated symptoms included nausea (60%), vomiting (40%), urinary symptoms (17%), loss of appetite (12%), constipation (10%), diarrhoea (9%), abdominal distension (3%), and jaundice (03%). Most common cause of acute abdomen in our study was acute appendicitis 25%, followed by acute intestinal obstruction accounting for about 14% of the cases, nephrolithiasis and calcularcholecystitis were responsible in 13% and 12% cases respectively, pancreatitis in about 6% of the cases, acid peptic disease and perforated duodenal ulcer in 6% and 3% cases respectively, ruptured ectopic, acute myocardial infarction and mesenteric ischemia were among least common causes of acute abdomen in our study (Table 5). Out of total 410 patients 76% were admitted for further workup and management while 22% were discharged from emergency department while 02% of patients took discharge at request. 59 (14.33%) patients developed complications of which metabolic acidosis and electrolyte disturbance were the two most common complications noted (Table 6). A mortality rate of 1.46% was noted in the study(Table 7).

TABLE 1: AGE DISTRIBUTION

AGE(YRS)	NO OF PATIENTS	%
15-30	230	56
31-50	123	30
>50	57	14
TOTAL	410	100

TABLE 2: SEX DISTRIBUTION

SEX	NO OF PATIENTS	%
MALE	246	60
FEMALE	164	40
TOTAL	410	100

TABLE 3: DURATION OF PAIN

SEX	NO OF PATIENTS	%
<3	325	79
>3	85	21
TOTAL	410	100

TABLE 4: COMORBIDITIES

COMORBIDITY	NO OF PATIENTS	%
HYPERTENSION	20	5
T2DM	25	6
IHD	3	0.8
POST LAPAROTOMY	18	4.5
MALIGNANCY	12	2.8
TUBERCULOSIS	4	1

TABLE 5: ETIOLOGY OF ACUTE ABDOMEN OF PATIENTS PRESENTING TO EMERGENCY.

ETIOLOGY	NO OF PATIENTS	%
ACUTE APPENDICITIS	102	25
ACUTE INTESTINAL OBSTRUCTION	56	14
ACUTE ACALCULAR PANCREATITIS	13	3.7
ACUTE CALCULAR PANCREATITIS	14	3.14
ACUTE ACALCULAR CHOLECYSTITIS	19	4.63
ACUTE CALCULAR CHOLECYSTITIS	56	13.6
MESENTRIC ISCHEMIA	3	0.73
PERFORATED PEPTIC ULCER	15	3.65
PERITONITIS	35	8.53
NEPHROLITHIASIS	50	12.19
ECTOPIC PREGNANCY	1	0.24
LIVER ABSCESS	6	1.46
ACUTE MYOCARDIAL INFARCTION	3	0.73
PLEURISY	6	1.46
ACID PEPTIC DISEASE	25	6.09
ACUTE RETENTION OF URINE	6	1.46
TOTAL	410	100

TABLE 6: COMPLICATIONS AMONG PATIENTS

COMPLICATIONS	NO OF PATIENTS	%
ACUTE RENAL FAILURE	12	2.9
SHOCK	5	1.2
METABOLIC ACIDOSIS	25	6.09
ELECTROLYTE IMBALANCE	16	3.9
GI	1	0.24
TOTAL	59	14.33

TABLE 6: MORTALITY AMONG PATIENTS

	NO OF PATIENTS	%
SURVIVORS	404	98.53
NONSURVIVORS	6	1.46
TOTAL	410	100

Discussion

Immediate Acute abdomen may be defined as "An abnormal condition characterised by sudden onset of severe pain within the abdominal cavity which requires immediate evaluation, diagnosis and may require surgical intervention". (7) All patients with abdominal pain do not require extensive diagnostic tests. Sometimes, adequate history and physical evaluation alone is sufficient to accurately diagnose the condition and treat accordingly. Patients may present with vague complaints and varying associated symptoms making diagnosis difficult which ranges from benign to life threatening conditions. (2)More than half of them reported their pain as sudden onset while the remainder described their pain as gradual in onset. In our study, the most common site of radiation of pain was and was reported by 10% of our patients. This correlates with the large number of ureteric colic patients (12%) in our study. Though many other associated symptoms were recorded, their value in establishing a firm diagnosis could not be established. Medical literature also suggests that associated symptoms often lack specificity and atypical presentations are common. [6,8] Causes of acute abdominal pain include both medical and surgical. [8] In an observational study by Tariq et al. from Pakistan the most common cause of acute abdomen was acute appendicitis followed by acute pancreatitis and duodenal ulcer [9] which partially correlates with our study. A study done in Ghana, Africa, also reported acute appendicitis followed by typhoid fever with ileal perforation and acute intestinal obstruction as most common causes of acute abdominal pain.(10)

The modern physician should be humbled by the fact that, despite diagnostic and therapeutic advances (computed tomography [CT], ultrasonography, and laparoscopy), the

misdiagnosis rate of the most common surgical emergency, acute appendicitis, has changed little over time.(11)

Conclusion

Acute abdomen is a common ailment in the emergency room and many intraabdominal conditions share nonspecific symptoms. Apart from relieving the patient's symptoms, the emergency physician's primary role is to identify those cases that require immediate intervention in order to limit morbidity and mortality. Inspite of thorough history, clinical examination, laboratory and radiological investigations diagnosis remains elusive in a small subset of these patients. An unexpected negative test result should prompt a reassessment of the patient. Serial examination and identification of patients who may require urgent exploration is a sound strategy.

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