

Spectrum of Diseases in Patients with Non-Traumatic Acute Abdomen.

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Abstract:

Introduction: Acute Abdomen is the most common presenting complaints about 20% of all emergency department, due to its varied etiology it poses significant diagnostic challenges for emergency surgeons. The proper management of patients with acute abdominal pain requires a timely decision about the need for surgical operation.

Objective: To identify the spectrum of diseases in patients of non-traumatic leading to Acute abdomen, presenting in a surgical unit.

Methodology: During Jan 2012 to Dec 2014, this retrospective study conducted at Surgical Department of Muhammad Medical College, all patients presenting with non-traumatic acute abdominal pain were included in this study. Gynecological and urological causes were excluded. The patient diagnosis and management were recorded from the case files and OT registers.

Results: During the period, a total of 216 patients presented with non-traumatic acute abdomen; of which there were 145 (67.12%) males and 71 (32.87%) females, with a male to female ratio of 2:1. The highest incidence of acute abdomen 72 (33.33%) was found in patients of 22-32 years age group followed by under 21 years age group i.e. 51 (23.61%) and 33-42 years age group 43 (19.90%). There were 31 (14.35%) cases in 43-52 years and 19 (8.79%) cases in 53-70 years.

The most common cause of acute abdomen was acute appendicitis 105 (48.61%) admissions. These patients were mostly young males in twenties. Intestinal obstruction was second cause 45 (20.83%) cases and this affected more commonly the middle-aged persons. Two hundred and seven (95.83 %) patients were treated successfully and discharged home while 5 (2.31 %) left against medical advice, while 4 expired giving a mortality of (1.85) % in patients with gut perforation

Conclusion: The most common cause of acute abdomen is acute appendicitis affecting young population mostly. Another common cause is intestinal obstruction and gut perforation. Acute cholecystitis commonly affects the middle aged, post-menopausal women. Hepatic abscess and Pancreatitis are rare cause of acute abdomen in this area.

Key Words: Acute abdomen. Non-traumatic Acute appendicitis, Intestinal obstruction.

Introduction:

Acute Abdomen is the most common presenting complaints about 20% of all emergency department, due to its varied etiology it poses significant diagnostic challenges for emergency surgeons^{1,2}. Acute abdomen has a sudden onset, can persist for several hours to days and is associated with wide variety of clinical features like nausea, anorexia, vomiting, tachycardia etc., Acute abdomen is the leading cause of hospital admissions in US³. The list of possible causes of acute abdomen is long ranging from aortic dissection to psychogenic pain and including almost anything in between^{4,5,6,7}. The presenting signs and symptoms of two patients with same underlying pathology may look totally different or they may be similar even though the disease entities are distinct. The proper management of patients with acute abdominal pain requires a timely decision about the need for surgical operation. This decision requires evaluation of the patient's history and physical findings, clinical examination, laboratory data, and imaging tests. Many diseases, some of which do not require surgical treatment, produce abdominal pain, so the evaluation of patients with abdominal pain must be Methodical and careful. All patients with abdominal pain should undergo evaluation to establish a diagnosis so that timely treatment can minimize morbidity and mortality. But despite its frequent occurrence, it is difficult to

manage because no matter how thorough the work up is, specific diagnosis is not possible in 30% cases⁸.

Aims and objectives:**Aims:**

The aim of this study was to identify the spectrum of disease causing non-traumatic surgical acute abdomen in local population.

Objectives:

1. Sensitivity, specificity, value of different investigations
2. Acute abdomen confirmed by operative findings
3. Rate of negative Laparotomy
4. Age and Sex incidence ratio

Methodology:

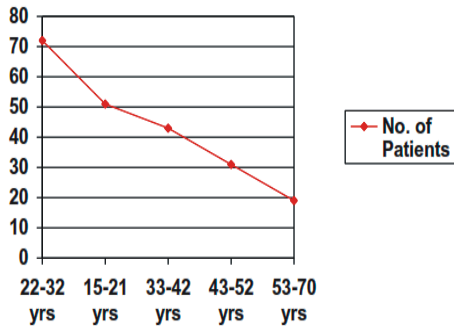
This retrospective study was conducted in the General Surgery department of Muhammad Medical College, Mirpurkhas, Sindh from January 2012 to December 2014. All patients aged more than 13 years admitted with acute onset non-traumatic Abdominal pain in general surgery ward were included in this study. Patients having Traumatic abdominal pain was excluded from the study. Patients presenting with gynecological and urological causes were excluded. All cases were studied in terms of patient's clinical presentation, radiological and other investigations performed modalities of treatment, operative findings, postoperative course, morbidity and mortality. Patient case files and operation theatre record provided all useful information. All patients following a clinical diagnosis of acute abdomen were

investigated. A plain abdominal radiograph was initial and foremost investigation performed. Ultrasound and laboratory investigations further aided to evaluation and management. Traumatic acute abdomen will be excluded from the study.

Result:

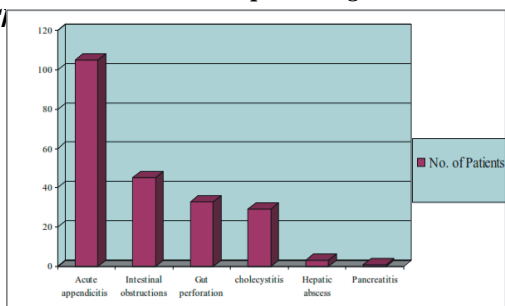
Out of 216 patients, 145 (67.12%) were males and 71 (32.87%) females with a male to female ratio of 2:1. Highest incidence of acute abdomen i.e. 72 (33.33%), was found in patients of 22-32 years age group, followed by under 21 years age group i.e. 51 (23.61%) and 33-42 years age group 43 (19.90%). There were 31 (14.35%) cases in 43-52 years and 19 (8.79%) cases in 53-70 years.

The age and sex distribution is shown in Table I.



Acute appendicitis was the most common cause of acute abdomen, accounting 105 (48.61%) admissions. These patients presented with migratory pain in right iliac fossa and were diagnosed as the case of acute appendicitis on Alvarado's score. 90 patients underwent emergency appendectomy. 15 patients had perforated appendix. Intestinal obstruction was second leading cause of acute abdomen. It affected mostly males above 35 years of age. 45 (20.83%) patients were diagnosed with intestinal obstruction and included, acute, sub-acute and obstruction. Most common cause was adhesions and Hernias followed by tuberculous strictures. 33 (15.27%) patients presented with gut perforation. Including peptic ulcer perforations, typhoidal perforation included in it. 29 (13.42%) presented with acute cholecystitis commonly affected middle aged, and post-menopausal women some were managed conservatively initially, and majority underwent Cholecystectomy as elective procedure later on. 3 (1.3%) patients were diagnosed with hepatic abscess. These patients are managed Conservatively. There were only 1 cases of pancreatitis.

The causes and their percentages are shown in C1



Two hundred and seven (95.83 %) patients are treated successfully and discharged home, 5 (2.31 %) left against medical advice, while 4 expired giving a mortality of (1.85) %. Mortality was found to be highest in patients with gut perforation

Discussion:

Acute abdominal pain consists of large number of emergencies of non-traumatic admitted in surgical department ⁹. The term acute abdomen having long list of differential diagnoses and is greatest challenge for clinicians¹⁰. Pattern of diseases vary according to age, sex, and socioeconomic states and environmental factors. In this study various age groups included from 20 to 70 years and common age group affected is 40-60 years¹¹. The most common causes of nontraumatic acute abdomen is acute Appendicitis in various age groups also in western countries this cause is common ¹²⁻¹⁴. Most patients in our study presented in emergency with migratory pain in RIF, with pyrexia and rebound tenderness in RIF on examination, but none of these are specific for appendicitis. Similar to a metanalysis of signs and symptoms associated with acute appendicitis, which was unable to identify any one diagnostic finding but showed that migration of pain was associated with diagnosis of appendicitis¹⁵. Intestinal obstruction was second leading cause of acute abdomen. It affected mostly males above 35 years of age. 45 (20.83%) patients were diagnosed with intestinal obstruction and included, acute, sub-acute and obstruction. Most common cause was adhesions and Hernias followed by tuberculous strictures.

Gut perforation is another cause included peptic ulcer and duodenal perforation. Tuberculosis is also common in our area. It occurs most commonly 4th decade of life ¹⁶. Acute cholecystitis, another cause of acute abdomen, commonly affected middle aged and post-menopausal women. There are also 3 cases of Hepatic abscess, and 1 case of acute pancreatitis seen manage conservatively.

Conclusions:

Acute appendicitis is the most common cause of non-traumatic acute abdomen affecting young population. The second most common cause of acute abdomen is intestinal obstruction affecting middle aged and elderly, followed by gut perforation particularly peptic ulcer perforation and duodenal perforation leading to peritonitis. Acute cholecystitis is another common cause affecting the middle aged, and postmenopausal women. Hepatic abscess and Pancreatitis are rare cause of acute abdomen in this area.

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