

Assessment of Acute Abdomen Cases Coming to Tertiary Care Hospital**K Ashok****Associate Professor, Department of General Surgery, RIMS, Adilabad, Telangana State.****Received: 01-08-2023 / Revised: 10-08-2023 / Accepted: 17-08-2023****Corresponding author: Dr. K Ashok****Conflict of interest: Nil****Abstract:**

The term acute abdomen designates symptoms and signs of intraabdominal diseases usually treated best by surgical operation. 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. The proper management of patients with acute abdominal pain requires a timely decision about the need for surgical operation. The present study was done in 100 patients presenting with acute abdominal pain in Tertiary care teaching Hospital. All 100 patients were managed surgically. Some patients were managed conservatively but were not included in study. Maximum cases were of Acute appendicitis 48%. Colonic perforation and bowel obstruction were 16% cases each. Most surgeries done were of Appendicectomy and Exploratory laparotomy. Acute abdomen is often a surgical emergency and a challenge to any surgeon. Rigorous approach to diagnose is mandatory.

Keywords: Acute Abdomen, Surgical Management.

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Introduction

Acute abdomen means acute onset of abdominal symptoms that may occur suddenly or gradually over a period of several hours and presents a symptom complex that possibly threatens life and demands immediate diagnosis and early treatment. Acute abdomen is the commonest surgical emergency in our department. It remains the important cause of morbidity and mortality in emergency. So it is necessary for the surgeon to be familiar both with the presentation of common cause of abdominal pain and validity of the diagnostic tests. Diagnosis of acute abdomen before laparotomy is essential in reducing the morbidity and mortality, while negative laparotomies is not condemned. In spite of all the ultramodern investigations and treatment, abdomen still continues to be the "PANDARO'S MAGIC BOX". This challenging clinical scenario requires a thorough and expeditious workup to determine the need for operative intervention and initiate appropriate therapy.[1] Acute abdominal pain may represent the cardinal symptom behind a vast number of possible underlying causes that require surgical treatment. The acute abdomen thus represents the most common surgical emergency, the most common reason for a surgical consultation in the emergency room and the more common reason for a nonaccidental hospitalization.[2] Acute abdominal pain, is a severe abdominal pain, if accompanied by guarding and

muscular rigidity, essentially describes the clinical picture of peritonitis and usually calls for an emergency operation.[3] The general thumb rule is

that any pain abdomen which is persistent for a period of more than 6 days is usually caused by a disease of surgical significance.[4] This led to the common misconception that the acute abdomen is synonymous with the surgical abdomen. However, not all cases of acute abdomen are best treated with surgery. 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, laboratory data, and imaging tests [5]. The syndrome of acute abdominal pain generates a large number of hospital visits and may affect the very young, the very old, either sex, and all socioeconomic groups. All patients with abdominal pain should undergo evaluation to establish a diagnosis so that timely treatment can minimize morbidity and mortality. The first principle is that the necessity of making a serious and thorough attempt at diagnosis, usually predominantly by means of the history and physical examination. Abdominal pain is one of the most common conditions that call for prompt diagnosis and treatment. Usually, though by no means always, other symptoms accompany the pain, but in most cases of acute abdominal disease pain is the main symptom and complaint. Assessment of Acute Abdomen cases coming to Tertiary care Hospital was the aim of this study.

Material and Method

The present study was done in 100 patients presenting with acute abdominal pain in Tertiary care teaching Hospital. All 100 patients were managed surgically .

Some patients were managed conservatively but were not included in study.

Inclusion criteria: Patients willing to participate in the study, Patients with history of acute onset of pain in abdomen, Positive findings in USG and x-ray abdomen standing.

Exclusion criteria: Patients presented with acute abdomen of traumatic origin, Pregnant women presented with acute abdomen.

Pre-operative detailed history and thorough physical examination was done for all acute abdominal emergencies, to arrive at preoperative diagnosis. After admission routine investigations namely hemoglobin (Hb%), total count (TC), differential count (DC), urine examination were carried out. Relevant procedure like plain X-ray abdomen, USG, CT scan, was taken in some cases. In 100 cases operative findings and postoperative diagnosis were recorded. Data was tabulated in frequency and percentage.

Table 1: Age wise and gender distribution of Patients

Age group in years	Male n=63	Female n=37
<10	01	00
11-20	20	12
21-35	08	06
36-50	16	11
51-70	15	06
>70	03	02

There were 63 male and 37 female patients in study.

Table 2 : Distribution of Acute Abdomen Cases

Diagnosis	Frequency n=100	Percentage
Acute appendicitis	48	48%
Duodenal perforation	07	07%
Gastric perforation	08	08%
Gall bladder perforation	02	02%
Colonic perforation	16	16%
Ruptured liver abscess	03	03%
Bowel obstruction	16	16%

Maximum cases were of Acute appendicitis 48%. Colonic perforation and bowel obstruction were 16% cases each.

Table 3: Symptoms in Patients

Symptoms	Frequency n=100	Percentage
Pain abdomen	98	98 %
Fever	74	74 %
Nausea	92	92 %
Vomiting	86	86 %
Distension of abdomen	25	25 %

Main symptom in Acute abdomen cases was pain in abdomen 98%, Nausea 92%and vomiting 86%

Table 4: Management of Acute Abdomen cases

Surgery Done	Frequency n=100	Percentage
Appendectomy	38	38 %
Exploratory Laprotomy	42	42 %
Reduction of intussusception	02	02 %
Resection and end to end anastomosis	03	03 %
Retroperitoneal drainage of abscess	06	06 %
Release of obstruction anatomical repair	07	07 %
De-rotation of volvulus and fixing	02	02 %

Table 4 shows various surgical management of acute abdomen cases. Most surgeries done were of Appendectomy and Exploratory Laprotomy.

Discussion

Acute abdominal pain is one of the most common causes of admission as a general surgical emergency. The term acute abdomen includes a long list of differential diagnosis which poses a great challenge to surgeons. There were 63 male and 37 female patients

in study. Maximum cases were of Acute appendicitis 48%. Colonic perforation and bowel obstruction were 16% cases each. Main symptom in Acute abdomen cases was pain in abdomen 98%, Nausea 92%and vomiting 86%. Most surgeries done were of Appendectomy and Exploratory Laprotomy. In a study done by Jain et al in India, the most common cause was performative peritonitis (39.7%), followed by acute appendicitis (37.7%), and followed by intestinal obstruction (14.2%).[6] In a study done on

299 patients by Hagos et al in Ethiopia (Africa), the most common cause for acute abdomen was Acute appendicitis 53.2% and Bowel obstruction 28.7% followed by perforative peritonitis 4.3%.[7] The incidence of Acute Abdomen in our study has been very close to a recent study conducted by Dr. Bandana Pandey in National Academy of Medical Sciences Mahaboudha, Kathmandu, Nepal in February 2009. In a study done by Basret all in Chandigarh India shows the ages varied between 10- 70 years and most of them were in the age range of 20-40 years. The median age group in Pandey study was 26 years, in the Datubo-Brown DD, et al. it was 20 years [8]. It was 30 years in the basic study while in my study it was 20 years. Abdominal pain is a common occurrence in the elderly patients and poses a difficult challenge for the emergency physician. Previous studies demonstrated that among the elderly patients presenting to the emergency department with abdominal pain had surgery for the underlying condition [9]. Acute abdominal pain (generally defined as pain of less than one week's duration) is a common presenting complaint among older patients. Approximately one fourth of patients who present to the emergency department are older than 50 years [10]. The presentation of an older patient with abdominal pain may be very different from that seen in a younger patient. Older patients tend to present later in the course of their illness and have more nonspecific symptoms [11]. In addition, a broader differential diagnosis must be considered in older patients with abdominal pain. Older patients may delay seeking care because they fear losing independence, lack health insurance, lack transportation, lack a secondary caregiver for their spouse or pet, or are afraid of hospitals or death. Acute appendicitis forms the maximum cause of acute abdomen in both the studies [12]. Acute abdomen is a commonest emergency in surgical practice. Majority of the patients are male and in the age group of 20-40 years. Etiology of most of the cases is perforation peritonitis and acute appendicitis and acute cholecystitis. All cases should be thoroughly investigated by history taking and investigations like plain x-ray abdomen and hematological investigations. No case should be managed conservatively without excluding the cause for surgical interventions it may lead to gross negligence and morbidity and even mortality of the patient.

Conclusion

Acute abdomen is often a surgical emergency and a challenge to any surgeon. Rigorous approach to diagnose is mandatory. Acute appendicitis was the most common cause of abdominal surgical

emergency. The incidence of Non traumatic acute abdomen has increased exponentially and constitutes majority of the cases admitted through emergency room. Early diagnosis and its management play an important role in a better clinical outcome. The study is a humble attempt to document incidence of various diseases diagnosed and its management in a tertiary care centre.

References

1. Sethuraman U, Siadat M, Lepak-Hitch CA, Haritos D. Pulmonary embolism presenting as acute abdomen in a child and adult. *Am J Emerg Med.* 2009;27:514.e1-5.
2. Irvin TT. Abdominal pain: a surgical audit of 1190 emergency admissions. *Br J Surg.* 1989; 76: 1121-5
3. Grundmann RT, Petersen M, Lippert H, Meyer F. Das acute (chirurgische) Abdomen Epidemiologie, Diagnostik und allgemeine Prinzipien des Managements. *Z Gastroenterol.* 2010;48:696-706.
4. Venkateswarlu MC, Chandrakala G, Aiswarya, Study of Diseases in Patients with Non-Traumatic Acute Abdomen. *IOSR.* 2015;14(10):15-9.
5. Mayumi T, et al. The Practice Guidelines for Primary Care of Acute Abdomen 2015. *Jpn J Radiol.*, 2015 Dec 18.
6. Jain R, Gupta V. A prospective study of epidemiology and clinical presentation of nontraumatic acute abdomen cases in a tertiary care hospital of central India. *Int Surg J.* 2016;3(1):2425.
7. Hagos M. Acute abdomen in adults: a two-year experience in Mekelle, Ethiopia. *Ethiopian Med J.* 2015;53(1):19-24.
8. Datubo-Brown DD, Adotey JM. Pattern of surgical acute abdomen in the University of Port Harcourt Teaching Hospital. *West Afr J Med.*, 1990; 9: 5962.
9. Medford-Davis L, et al. Diagnostic errors related to acute abdominal pain in the emergency department. *Emerg Med J.*, 2015 Nov 3. pii: emermed-2015204754.
10. Frei P. Differential diagnosis of abdominal pain. *Praxis*, 2015; 104: 95965.
11. Ng-Kamstra JS, et al. Deaths from acute abdominal conditions and geographic access to surgical care in India: a nationally representative population based spatial analysis. *Lancet*, 2015; 385: S32.
12. Żyluk A, Jagielski W. An Uncommon Course of Acute Appendicitis with Sepsis - A Case Report. *Pol Przegl Chir.*, 2015; 87: 272-6.