

Study on Acute Non-Traumatic Abdominal Emergencies in Telangana Population

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Received: 01-11-2025 / Revised: 15-12-2025 / Accepted: 21-01-2026

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Conflict of interest: Nil

Abstract

Background: Pain in the abdomen is one of the common reasons for emergency. Delay or negligence may lead to mortalities.

Method: 80 (eighty) adult patients with different etiologies were studied. Apart from routine blood examination, a CT scan/USG study was carried out to confirm the clinical diagnosis and plan for surgery or conservative treatment.

Results: out of 80 patients, 46 (57.5%) had acute appendicitis, 9 (11.2%) had acute intestinal obstruction, 7 (8.7%) had hollow viscus perforations, 6 (7.5%) had acute cholecystitis, 4 (5%) had acute pancreatitis, 5 (6.2%) had liver abscess, 2 (2.5%) had Meckel's diverticulum, and 1 (1.2%) was miscellaneous, and the mortality rate varied from 14% to 25%.

Conclusion: Non-traumatic abdominal emergencies may occur at any time; hence, a well-equipped hospital, efficient clinician or surgeon can manage the morbidities and reduce the mortalities.

Keywords: Mortality, Morbidity, Conservative, Abscess, Non-Traumatic, Acute Appendicitis.

DOI: 10.25258/ijcpr.18.2.153

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Introduction

Pain in the abdomen is one of the common reasons for a visit to the emergency room. The natural history of acute abdomen depends on the pathological process involved, which in some instances may resolve spontaneously with or without treatment and at other times may progress to generalized peritonitis and death [1].

The common causes of acute abdominal pain include acute appendicitis, hollow viscus perforation, obstructed hernia, sigmoid volvulus, twisted ovarian cyst, and nonspecific, nonsurgical abdominal pain [2]. A complete history and physical examination and differential diagnosis have to be correlated with laboratory data and radiological examination [3]. Improper diagnosis or delay of medical aid may be fatal to the patient [4].

Hence an attempt is made to evaluate the various manifestations of acute non-traumatic abdominal emergencies in adult patients of both sexes.

Material and Method

80 (eighty) adult patients admitted at Mallareddy Medical college for women, Mallareddy Vishwavidyapeeth Suraram X Road, Quthabullapur, Hyderabad, 500055, Telangana, were studied.

Inclusive Criteria: All adult patients with non-traumatic abdominal pain were selected for study.

Exclusion Criteria: Patients below 14 years, traumatic cases (blunt or penetrating), acute abdomen in pregnancy, and gynecological cases of acute abdomen were excluded from the study.

Method: A detailed history of and clinical examination of every patient was obtained from the case sheets. Routine blood examinations and findings of USG/CT scans of the abdomen and pelvis were also studied. Relevant procedures were also done in some patients. Operative findings and diagnosis were recorded. The outcome was evaluated.

The duration of the study was from March 2024 to January 2026.

Statistical analysis: various clinical manifestations, management of acute abdominal emergencies, and mortality rates were classified with percentages. The statistical analysis was carried out in SPSS software. The ratio of male and female was 2:1.

Observation and Results

Table 1: Clinical manifestation of patients with non-traumatic acute abdominal emergencies 46 (57.5%) acute appendicitis, 9 (11.2%) acute intestinal obstruction, 7 (8.7%) hollow viscous perforations, 6 (7.5%) acute cholecystitis, 4 (5%) acute pancreatitis, 5 (6.2%) liver abscess, 2 (2.5%) Meckel's diverticulum, 1 (1.2%) miscellaneous.

Table 2: Management of acute non-traumatic abdominal emergencies: 43 (53.7%) operative, 3 (3.7%) conservative,

- Acute intestinal obstruction: 7 (8.7%) operative and 2 (2.5%) had conservative
- Hollow viscus perforation: 6 (8.2%) operative, 1 (1.2%) had conservative
- Acute cholecystitis: 4 (5%) had operative, 2 (2.5%) had conservative.
- Acute pancreatitis: 4 (5%) were conservative
- Liver abscess: 1 (1.2%) operative, 4 (4.5%) conservative
- Meckel's diverticulum: 2 (2.3%) had operative
- Miscellaneous: 1 (1.2%) operative

Table 3:

Study of mortality rate in non-traumatic abdominal emergencies

- Acute appendicitis 46, Rate of Mortality-00
- Acute intestinal obstruction 9, mortality 2
- Hollow viscous perforations 7, Mortality 2
- Acute cholecystitis 6, mortality 1
- Acute pancreatitis 4, mortality 1
- Liver abscess 5, no mortality
- Meckel's diverticulum 2, mortality none
- Miscellaneous 1, mortality none

Table 1: Clinical Manifestations of patients with non-traumatic acute abdominal emergencies (No. of patients: 80)

Manifestations	No. of Patients (80)	Percentage
Acute Appendicitis	46	57.5
Acute Intestinal obstruction	9	11.2
Hollow viscous perforations	7	8.7
Acute Cholecystitis	6	7.5
Acute pancreatitis	4	5
Liver Abscess	5	6.2
Meckel's Diverticulum	2	2.5
Miscellaneous causes	1	1.2

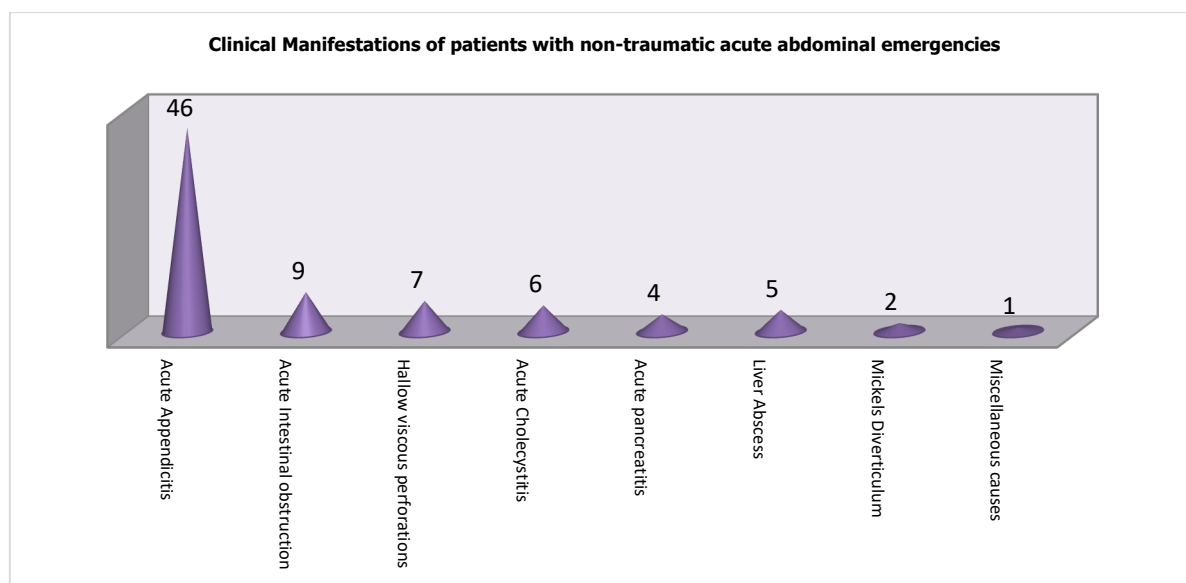
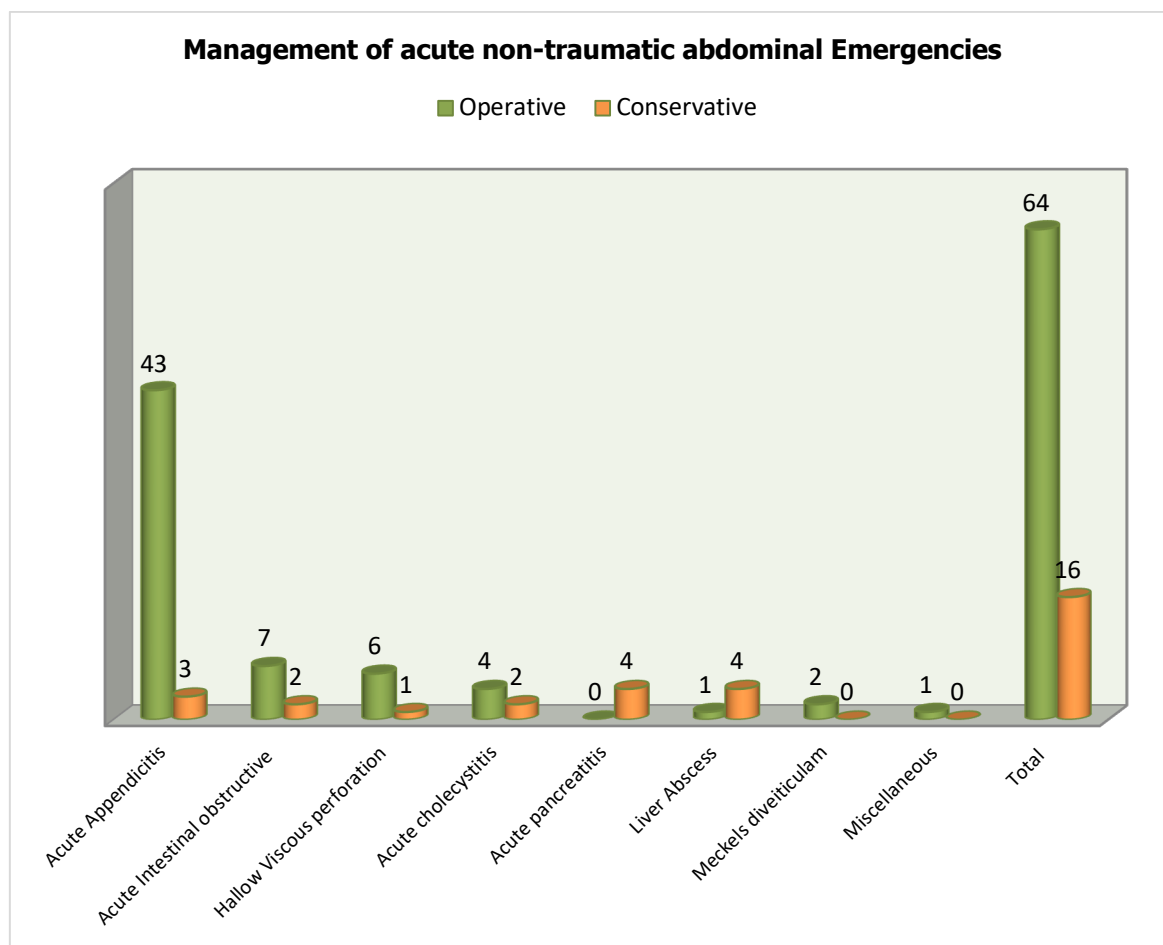


Figure 1: Clinical Manifestations of patients with non-traumatic acute abdominal emergencies

Table 2: Management of acute non-traumatic abdominal Emergencies

Diagnosis	Operative	%	Conservative	%
Acute Appendicitis	43	53.7	3	3.7
Acute Intestinal obstruction	7	8.7	2	2.5
Hollow Viscus perforation	6	7.5	1	1.2
Acute cholecystitis	4	5	2	2.5
Acute pancreatitis	0	0	4	5
Liver Abscess	1	1.2	4	5
Meckel's diverticulum	2	2.5	0	0
Miscellaneous	1	1.2	0	0
Total	64	80	16	20

**Figure 2: Management of acute non-traumatic abdominal Emergencies****Table 3: Study of mortality rate in Non-traumatic abdominal Emergencies**

Diagnosis	No. of Total Patients	No. of patients expired	Rate Mortality
Acute Appendicitis	46	0	0
Acute intestinal obstruction	9	2	20.
Hollow viscus perforation	7	2	20
Acute cholecystitis	6	1	14
Acute pancreatitis	4	1	25
Liver abscess	5	0	--
Meckel's diverticulum	2	0	--
Miscellaneous	1	0	--
Total	80	6	--

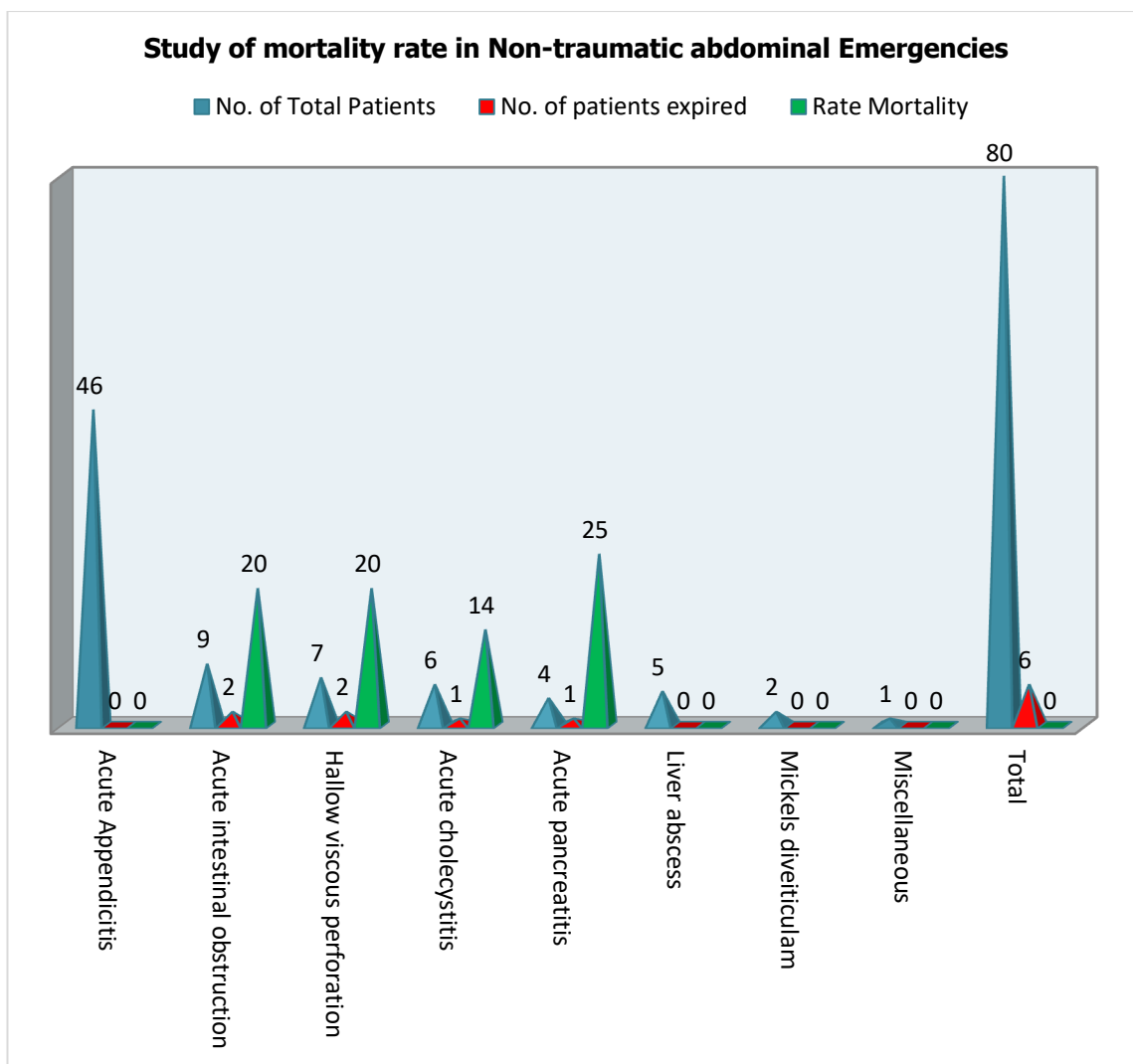


Figure 3: Study of mortality rate in non-traumatic abdominal Emergencies

Discussion

The present study of acute non-traumatic abdominal emergencies in the Telangana population had 46 (57.5%) acute appendicitis, 9 (11.2%) acute intestinal obstruction, 7 (8.7%) hollow viscous perforations, 6 (7.5%) acute cholecystitis, 4 (5%) acute pancreatitis, 5 (6.2%) liver abscess, 2 (2.5%) Meckel's diverticulum, 1 (1.2%) Miscellaneous (Table 1). Among these patients, 64 (80%) were operative, and 16 (20%) were treated conservatively (Table 2). Mortality rate varied from 14% to 25% (Table 3). These findings are more or less in agreement with previous studies [5,6,7].

Acute Non-traumatic abdominal pain origins include a spectrum of medical and surgical etiologies ranging from minor to life-threatening conditions. Diagnosis of etiology has been a dilemma due to many factors related to the unique anatomy of the abdominal viscera and its continuous motion. [8] Patients may have acute exacerbations of chronic problems (e.g., peptic

ulcer disease, pancreatitis, and inflammation of bowel disease), acute surgical abdomens (e.g., appendicitis, intestinal perforations, and acute volvulus), or non-surgical abdominal emergencies (e.g., ureteric colic, biliary colic, and acute gastroenteritis).

Acute-onset pain, especially if severe, should prompt immediate concern about a potential intra-abdominal catastrophe like a ruptured abdominal aortic aneurysm, perforated viscus, mesenteric ischemia, or torsion. The neural pathways give rise to predictable patterns of referred pain and radiation [9].

Ultra-sonography (US) evaluates the solid organs (liver, spleen, pancreas, uterus, ovaries) and detects intraperitoneal effusions and collections. Although intestinal gas may impair sensitivity, the technique of gradual compression [10]. CT imaging has become widely available. This has changed the strategies for evaluation of abdominal emergencies in adults despite the issue of radiation exposure. MRI, a non-invasive medical imaging technique

with no known side effects, produces two- and three-dimensional images with multiple contrasts depending on the sequences employed.

Summary and Conclusion

Non-traumatic abdominal pain in adults is a common reason for emergency room consultation. Many diseases, some of which are serious, may be responsible for the pain. These patients require rapid and accurate diagnosis and management. Clinical examination and laboratory tests are rarely sufficient to meet this objective, and imaging studies are the rule. The ideal imaging modality should be sensitive and specific, free from side effects, easily available, and inexpensive. The government should initiate such facilities in every government hospital so that any patients of middle socio-economic status can avail of such facilities.

Limitation of study: Owing to tertiary location of study institution, small number of patients lack of latest techniques we have limited findings and results.

This research work was approved by Ethical committee of Mallareddy Medical College for women, Mallareddy Vishwavidyapeeth Suraram X road, Quthbullapur Hyderabad 500055, Telangana.

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