

## STUDY ON ACUTE NON-TRAUMATIC ABDOMINAL EMERGENCIES

Sagar Basnale<sup>1</sup>

<sup>1</sup>Associate Professor, Department of Surgery, Mallareddy Institute of Medical Science (MRIMS) Suraram X road, quthabullapur Hyderabad, Telangana, India

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Corresponding Author:

**Dr. Sagar Basnale,**  
Email: sdrsagar@gmail.com

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**Abstract**

**Background:** Abdominal pain is the most common reason for a visit to the emergency room. Accurate diagnosis is essential to treat such emergencies and can avoid unnecessary surgical intervention. **Materials and Methods:** 85 (eighty-five) 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. **Result:** Out of 85 patients, 48 (56.1%) had acute appendicitis, 10 (11.7%) had acute intestinal obstruction, 8 (9.4%) had hollow viscous perforations, 7 (8.2%) had acute cholecystitis, 4 (4.7%) had acute pancreatitis, 5 (5.8%) had liver abscess, 2 (5.8%) had mickels diverticulum, and 1 (1.1%) were miscellaneous, and the mortality rate varied from 14% to 25%. **Conclusion:** Non-traumatic emergencies are untimely and may occur at any time; hence, a well-equipped hospital-efficient clinician or surgeon can manage the morbidities and reduce the mortalities.

## INTRODUCTION

Abdominal pain is one of the most common reasons for visiting the emergency department. The natural clinical history of acute abdominal pain depends on the pathological process involved; the same cases may resolve spontaneously with or without treatment and, at other times, may progress to generalized peritonitis and death.<sup>[1]</sup> Causes may be gastrointestinal, urological, gynecological, and other non-specific causes.<sup>[2]</sup>

Non-traumatic abdominal pain of small bowel origin includes a spectrum of medical and surgical conditions ranging from minor to life-threatening conditions. Prompt and accurate diagnosis of these conditions is essential to determine the need for surgical intervention and to reduce morbidity and mortality.<sup>[3]</sup> Radiological techniques and pathological investigation help the proper evaluation of non-traumatic abdominal emergencies if surgical intervention or conservative treatment can manage the patient's condition.<sup>[4]</sup> Hence an attempt is made to study the emergencies of different viscera of the abdomen to rule out the morbidity and morbidity.

## MATERIALS AND METHODS

95 adult patients admitted at Mallareddy Institute of Medical Science (MRIMS) Suraram X roads, 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 were obtained from the case sheets. Routine blood examination 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 final outcome was evaluated.

The duration of the study was from June 2022 to May 2024.

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

## RESULTS

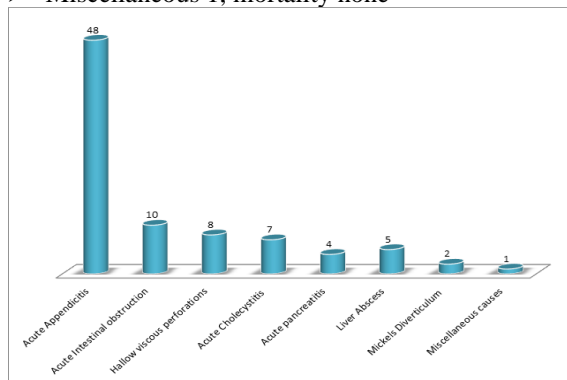
[Table 1] Clinical manifestation of patients with non-traumatic acute abdominal emergencies 48 (56.4%) acute appendicitis, 10 (11.7%) acute intestinal obstruction, 8 (9.4%) hallow viscous perforations, 7 (8.2%) acute cholecystitis, 4 (4.7) acute pancreatitis, 5 (5.8%) liver abscess, 2 (2.3%) Mickels diverticulum, 1 (1.1%) miscellaneous.

[Table 2] Management of acute non-traumatic abdominal emergencies: 45 (52.9%) operative, 3 (3.5%) conservative,

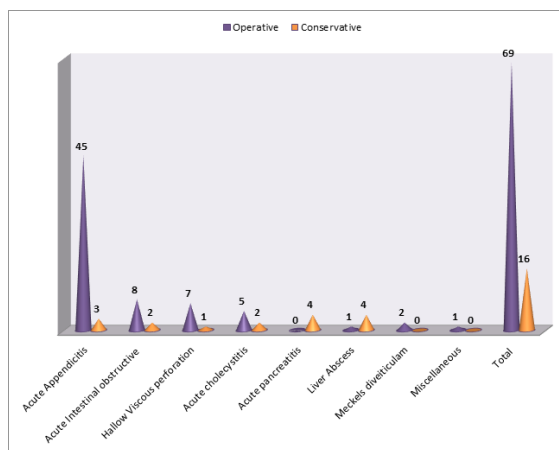
- Acute intestinal obstruction: 8 (9.4%) operatives and 2 (2.3) had conservative
- Hallow viscous perforation: 7 (8.2%) operative, 1 (1.1%) had conservative
- Acute cholecystitis: 5 (5.8%) had operative, 2 (2.3%) had conservative.
- Acute pancreatitis: 4 (4.7%) were conservative
- Liver abscess: 1 (1.1%) operative, 4 (4.7%) conservative
- Mickels diveiticulam: 2 (2.3%) had operative
- Miscellaneous: 1 (1.1%) operative

[Table 3] Study of mortality rate in non-traumatic abdominal emergencies

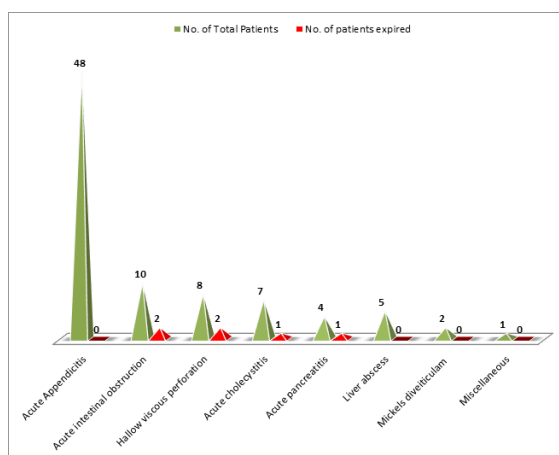
- Acute appendicitis 48, Rate of Mortality-00
- Acute intestinal obstruction 10, mortality 2
- Hallow viscous perforations 8, Mortality 2
- Acute cholecystitis 7, mortality 1
- Acute pancreatitis 4, mortality 1
- Liver abscess 5, no mortality
- Mickels diveiticulam 2, mortality none
- Miscellaneous 1, mortality none



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



**Figure 2: Management of acute non-traumatic abdominal Emergencies**



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

**Table 1: Clinical Manifestations of patients with non-traumatic acute abdominal emergencies. No. of patients: 85.**

Manifestations	No. of Patients (85)	Percentage
Acute Appendicitis	48	56.4
Acute Intestinal obstruction	10	11.7
Hallow viscous perforations	8	9.4
Acute Cholecystitis	7	8.2
Acute pancreatitis	4	4.7
Liver Abscess	5	5.8
Mickels Diverticulum	2	2.3
Miscellaneous causes	1	1.1

**Table 2: Management of acute non-traumatic abdominal Emergencies**

Diagnosis	Operative	%	Conservative	%
Acute Appendicitis	45	52.9	3	3.5
Acute Intestinal obstructive	8	9.4	2	2.3
Hallow Viscous perforation	7	8.2	1	1.1
Acute cholecystitis	5	5.8	2	2.3
Acute pancreatitis	0	0	4	4.7
Liver Abscess	1	1.1	4	4.7
Meckels diveiticulam	2	2.3	0	0
Miscellaneous	1	1.1	0	0
Total	69	81.1	16	28.9

**Table 3: Study of mortality rate in Non-traumatic abdominal Emergencies**

Diagnosis	No. of Total Patients	No. of patients expired	Rate Mortality
Acute Appendicitis	48	0	0
Acute intestinal obstruction	10	2	20.
Hallow viscous perforation	8	2	20
Acute cholecystitis	7	1	14
Acute pancreatitis	4	1	25
Liver abscess	5	0	--
Mickels diveiticulam	2	0	--
Miscellaneous	1	0	--

## DISCUSSION

Present study of an acute non-traumatic abdominal emergencies in Telangana population had 48 (56.4%) acute appendicitis, 10 (11.7%) acute appendicitis obstruction, 8 (9.4%) hollow viscous perforations, 7 (8.2%) acute cholecystitis, 4 (4.7%) acute pancreatitis, 5 (5.8%) liver abscess, 2 (2.3%) Mickels diverticulum, 1(1) Miscellaneous [Table 1]. Among these penitents 69 (81.1%) were operative, 16 (18.8%) 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.<sup>[5-7]</sup>

Acute Non-traumatic abdominal energies origin includes a spectrum of medical and surgical etiologies ranging from minor to life-threatening conditions. Diagnosis of aetiology has been a dilemma due to many factors related to the unique anatomy of the abdominal viscera and its continuous motion.<sup>[8]</sup> 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 ruptured abdominal aortic aneurysm, perforated viscous, mesenteric ischemia, or torsion. The neural pathways give rise to predictable patterns of reformed pain and radiation.<sup>[9]</sup>

Ultra sonography (US) evaluates the solid organs (liver spleen, pancreas, uterus, ovaries) and defect intra-peritoneal effusions and collections. Although intestinal gas may impair sensitivity; the technique of gradual compression.<sup>[10]</sup> The 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.

## 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 finding and results Mellareddy.

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