



# A Study To Assess The Non Traumatic Causes Of Acute Pain Abdomen Among The Patients Admitted In Emergency

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**ABSTRACT:** *INTRODUCTION:* Acute pain abdomen which may occur due to many causes like gastrointestinal, urological, gynaecological, metabolic, psychogenic, aortic dissection etc. Acute pain abdomen accounts for 5% to 10% of emergency admissions. *AIMS AND OBJECTIVES:* To study the causes of non traumatic acute pain abdomen. *MATERIALS AND METHODS:* 200 patients presenting with non traumatic acute pain abdomen were included in this cross sectional observational study. Etiology of pain abdomen was searched with help of appropriate and proper clinical, laboratory and radiological investigations. *RESULTS:* Among the 200 patients enrolled, acute cholecystitis was the most common cause of acute non traumatic pain abdomen. *CONCLUSION:* Prompt diagnosis and proper management of acute pain abdomen is required to reduce the mortality and morbidity associated with underlying cause.

**KEYWORDS:** acute pain abdomen, acute cholecystitis, non traumatic pain abdomen.

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## I. INTRODUCTION

5% to 10% of emergency visit are due to pain abdomen[1,2]. It may have many causes like gastrointestinal, urological, gynaecological, metabolic etc.[3]. These causes may be benign like of psychogenic origin or even life threatening like aortic dissection.

In patients of age group less than 18 years, acute appendicitis, gastroenteritis and abdominal trauma are common causes of pain abdomen. In middle aged and elderly patients, appendicitis, intestinal obstruction, cholecystitis, diverticulitis, etc. are the common causes of pain abdomen. Sometimes acute gastritis, cardiac and some metabolic disorders can also present as acute abdominal pain [5, 6].

Along with the proper clinical history and meticulous clinical examination, x-ray, ultrasonography and computed tomography are used for proper diagnosis.

## II. AIMS AND OBJECTIVES

To study the causes of non traumatic acute pain abdomen presenting to emergency department of a tertiary health care centre of Jharkhand.

## III. MATERIALS AND METHODS

This is a cross sectional observational study conducted at a tertiary health care centre of Jharkhand (Rajendra Institute of Medical Sciences, Ranchi) from January 2021 to July 2021.

Total 200 patients were enrolled in this study.

**INCLUSION CRITERIA:** Patient presenting to emergency department with history of non traumatic pain abdomen of age above 15 years.

**EXCLUSION CRITERIA:**

- Age less than 15 years.
- Pain abdomen of traumatic origin.
- Pain abdomen of metabolic, gynaecological, cardiac origin.

**IV. RESULTS**

A total of 200 patients were included in this study.  
120 patients i.e. 60% belonged to age group 15-40 years.

**Observation Table – 1: Age distribution**

Age group	Number	Percentage
15-40	120	60%
41-60	60	30%
>60	20	10%

170 patients i.e. 85% presented within 2 days of onset of symptoms.

**Observation Table – 2: Duration of symptoms**

Duration of onset of symptoms	Number	Percentage
<2 days	170	85%
>2 days	30	15%

**Observation Table – 3: ETIOLOGIES OF ACUTE PAIN ABDOMEN**

SERIAL NUMBER	ETIOLOGY	NUMBER OF CASES	PERCENTAGE
1.	Acute cholecystitis	62	31%
2.	Renal colic	48	24%
3.	Acute appendicitis	38	19%
4.	Intestinal perforation	28	14%
5.	Intestinal obstruction	20	10%
6.	Obstructed hernia	3	1.5%
7.	Gall bladder empyema	1	0.5%

**V. DISCUSSION**

Pain abdomen is one of the most common presenting complaints to emergency department. Prompt diagnosis and proper management is required for the relief of agony of the patients. Sometimes diagnosis is missed or even few cases remain undiagnosed. In some cases over-investigations or undue interventions are being done. Causes for acute pain abdomen may vary from benign causes like psychogenic to life threatening causes like rupture of abdominal aortic aneurysm.

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 [7]. 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 [8]. In another retrospective study done at Institute of Surgery of the University of Rome on 450 patients presenting with acute abdominal pain to the emergency department, appendicitis was the most common cause followed by non-specific abdominal pain (15.5%), cholelithiasis (12.5%) and abdominal malignancy (10.3%) [9].

In our study acute cholecystitis was the commonest cause (31%) followed by renal colic (24%), acute appendicitis (19%), intestinal perforation (14%), obstructed hernia (1.5%), gall bladder empyema (0.5%).

**Limitations:** 1. Small sample size & 2. Traumatic causes, gynaecological causes, metabolic causes, cardiac causes were excluded from the study.

**VI. CONCLUSION**

Acute abdomen, most of the time is a real surgical emergency. Prompt diagnosis of acute abdomen presenting to emergency department is very important, so that immediate and proper intervention can be taken. This will help to reduce morbidity and mortality associated with the underlying cause.

Conflict of interest: There is no conflict of interest among authors.

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