

**Original article:**

## **Study of management of acute pain in abdomen: Observational study**

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### **Abstract**

**Introduction:** Evaluation of the emergency department patient with acute abdominal pain is sometimes difficult. Various factors can obscure the presentation, delaying or preventing the correct diagnosis, with subsequent adverse patient outcomes.

**Material and methods:** The present work was carried out in our Department of surgery at YCM Hospital. This was an observational study including 50 patients admitted in our hospital with randomly included complaints of acute pain in abdomen.

**Results:** In our present study, out of 50 patients male dominance (64 %) was noted. Mean age was noted 38.50 years with SD 6.25 years. Out of 50 cases, only 6 patients were sent for CT-scan of them in 2 patients we found positive correlations. USG was done in 18 cases and of them there was found positive correlations in 14 patients. In our study, 40 % patients duration of hospital stay was 7 – 15 days while 44% were less than 7 days. Only 12% patients required more than 15 days.

**Conclusion:** From this study, we conclude that acute appendicitis, intestinal obstruction and duodenal ulcer was the most common cause of abdominal surgical emergency. Ultrasonography was found most effective emergency diagnostic test along with clinical examination.

**Keywords:** Acute pain, Ultrasonography, emergency medicine

### **Introduction:**

Evaluation of the emergency department patient with acute abdominal pain is sometimes difficult. Various factors can obscure the presentation, delaying or preventing the correct diagnosis, with subsequent adverse patient outcomes.<sup>1</sup> Clinicians must consider multiple diagnoses, especially those life-threatening conditions that require timely intervention to limit morbidity and mortality. This article will review general information on abdominal pain and discuss the clinical approach by review of the history and the physical examination. Additionally, this article will discuss the approach to unstable patients with abdominal pain.<sup>2</sup> Abdominal pain is the most common reason for a visit to the emergency department (ED), accounting for 8 million (7%) of the 119 million ED visits in 2006.<sup>1</sup> Obviously, anyone practicing emergency medicine (EM) must be skilled in the assessment of abdominal pain.<sup>3</sup>

### **Material and methods:**

The present work was carried out in our Department of surgery at YCM Hospital. This was an observational study including 50 patients admitted in our hospital with randomly included complaints of acute pain in abdomen.

**Inclusion criteria :**

The patients admitted in last one year were included in study except the patients that were not on regular follow up – were excluded from present study.

**Exclusion Criteria:**

We excluded patients with operated with other complications. Patients were excluded with not on follow up in study. Patients presented with acute abdomen of traumatic origin and Pregnant women and children presented with acute abdomen were also excluded from our study.

**Estimation of sample size:** With the help of expert.

All data was tabulated in Excel sheet and analyzed.

In this study, 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 leucocyte count (TLC), differential count (DC), urine examination were carried out. Relevant procedure like plain X-ray abdomen was taken in some cases. In 40 cases , operative findings and postoperative diagnosis were recorded. 10 cases recorded as managed by conservatively.

**Results:**

In our present study, out of 50 patients male dominance (64 %) was noted. Mean age was noted 38.50 years with SD 6.25 years.

Initially all patients were assessed with required investigations.

**Table 1) Radiological Investigations carried out in study patients**

Investigations	Number of patients ( N=50)	Found positive correlations
USG	18	14
X RAY	24	10
CT Scan	6	2

Out of 50 cases only 6 patients were sent for CTscan of them in 2 patients we found positive correlations. USG was done in 18 cases of them there was found positive correlations in 14 patients.

**Table 2) Diagnosis of admitted cases**

<b>Diagnosis</b>	<b>Number of patients ( N=50)</b>	<b>Percentage</b>
Acute appendicitis	22	44
Perforated duodenal ulcer	6	12
Gastric perforation	4	8
Acute pancreatitis	4	8
Renal colic pain	3	6
Acute intestinal obstruction	8	16
Others	3	6

In our present study 16% with acute intestinal obstruction, 44 % cases were found from acute appendicitis and 12% with duodenal ulcer.

**Table 3) Duration of hospital stay.**

<b>Duration of hospital stay. ( Days)</b>	<b>Number of patients ( N=50)</b>	<b>Percentage</b>
<b>Less than 7 days</b>	<b>22</b>	<b>44</b>
<b>7 – 15 days</b>	<b>20</b>	<b>40</b>
<b>More than 15 days</b>	<b>6</b>	<b>12</b>

In our study , 40 % patients duration of hospital stay was 7 – 15 days while 44% were less than 7 days. Only 12% patients required more than 15 days.

**Discussion:**

In our study, out of 50 patients, male predominance (64%) was noted. The mean age was recorded as 38.50 years with a SD of 6.25 years. Out of 50 cases, only 6 patients were sent for CT, in 2 patients we found positive correlations. USG was performed in 18 cases, positive correlations were found in 14 patients. In our present study 16% with acute intestinal obstruction, 44 % cases were found from acute appendicitis and 12% with duodenal ulcer. In our study 40 % patients duration of hospital stay was 7 – 15 days while 44% were less than 7 days. Only 12% patients required more than 15 days.

Appropriate pain therapy prior to diagnosis in patients with acute abdominal pain remains controversial. Several recent studies have shown that pain therapy does not negatively affect either the diagnosis or the subsequent treatment of these patients; however, current practices continue to favor discontinuation of pain medication over diagnosis and surgical treatment decisions.<sup>4,5</sup>

Treatment of acute abdominal pain in the emergency room (ER) is one of the most common tasks for surgeons.<sup>6</sup> Appropriate analgesia requires an assessment of the individual patient's pain, as well as a broad knowledge base of the pathophysiology of common causes of abdominal pain and the pharmacology of appropriate analgesics. Currently, there is no clear consensus regarding the timing of analgesia or the type of analgesics that should be used to effectively manage acute abdominal pain.<sup>7</sup> This uncertainty stems largely from concerns that pre-diagnostic analgesia may confound patient evaluation, particularly abdominal examination. Acute abdominal pain can be caused by a myriad of diagnoses, including acute appendicitis, diverticulitis, and cholecystitis. Imaging plays an important role in patient management because clinical evaluation results can be inaccurate.<sup>8</sup>

**Conclusion:**

From this study, we conclude that acute appendicitis, acute intestinal obstruction and duodenal ulcer was the most common cause of abdominal surgical emergency. Ultrasonography was found most effective emergency diagnostic along with clinical examination.

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