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Research Article

Clinical profile of acute abdomen cases at a tertiary care hospital

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ABSTRACT

Background: Abdominal pain is a common presentation in the outpatient setting and is challenging to diagnose. Abdominal pain is the presenting complaint in 1.5 percent of office-based visits1 and in 5 percent of emergency department visits.
Methods: All patients with who present with acute abdomen including blunt trauma to abdomen and post-operative cases are included for study and those who give consent for study. A total of 50 cases were studied during the period.
Results: Out of 50 cases 37 were due to non-traumatic abdominal pathology and 13 cases were caused by traumatic factor.
Conclusions: Abdominal pain is a common presenting complaint in the Emergency Department and clinicians must consider multiple diagnoses, especially in those cases that require immediate intervention in order to limit morbidity and mortality.

Keywords: Acute abdomen, Pain abdomen, Surgical intervention

INTRODUCTION

The term "acute abdomen" designates symptoms and signs of intra-abdominal disease usually treated best by surgical operation. Many diseases of which, some do not require surgical treatment produce abdominal pain, thus the evaluation of patient with acute abdominal pain must be methodical and careful.[1]

Proper management of the patients with acute pain abdomen requires a timely decision about the need for surgical intervention. This decision requires evaluation of the patient's history, physical findings, laboratory data and imaging tests.

Most of the cases of acute abdomen can be diagnosed clinically by the presence or absence of abdominal pain, abdominal tenderness, guarding and rigidity. There should be a certain diagnostic modality which confirms the diagnosis and the surgeon should feel safe and accurate in deciding which patients require surgical intervention. Although imaging modalities like X-rays, USG, CT, MRI etc. are available and can diagnose accurately, these investigations are not available everywhere or not available for 24 hours, in developing countries like India. For these reasons there should be a diagnostic modality which is simple, accurate and available by the bedside.

Abdominal pain is a common presentation in the outpatient setting and is challenging to diagnose. Abdominal pain is the presenting complaint in 1.5 percent of office-based visits1 and in 5 percent of emergency department visits.[2] Although most abdominal pain is benign, as many as 10 percent of patients in the emergency department setting and a lesser percentage in the outpatient setting have a severe or life-threatening cause or require surgery.[2] Therefore, a thorough and logical approach to the diagnosis of abdominal pain is necessary.

METHODS

In this cross sectional study, all patients with who present with acute abdomen including blunt trauma to abdomen and post-operative cases are included for study and those who give consent for study

Exclusion criteria

1. All pregnant patients.
2. All patients suspected of acute intestinal obstruction.
3. All patients with extensive abdominal scar.
4. All patients with acute non perforative biliary tract disease.
5. All patients with renal or ureteric calculi.
6. All patients with diagnosed coagulation disorders.

A total of 50 cases were studied during the period. Patients were evaluated in the following ways.

1. Accurate history was taken with respect to the

- Pain - Onset, type, site, progress, aggravating and relieving factors.
- Vomiting.
- Distention of abdomen.
- Bowel and bladder disturbance.
- Menstrual disturbance.

2. Vital signs of the patient were recorded.
3. Thorough clinical examination was done for the evidence of abdominal tenderness, guarding, Rigidity, obliteration of liver dullness and peristaltic sounds.

Based on the history and clinical examination, provisional clinical diagnosis was made and routine investigations like CBC, Urine; routine and microscopy were done in all patients.

RESULTS

Table 1: Age incidence.

Age group in years	No. of cases	Percentage
1-10	7	14
11 – 20	4	8
21 – 30	13	26
31 – 40	10	20
41 – 50	7	14
51 – 60	8	16
61 – 70	1	2

Ages between 21-30 years were the most common in our present study. Out of 50 cases 13 were from this age group. Next common age group was between 31-40 years, which constituted 10 cases followed by 51-60 age groups, which constituted 8 cases.

Table 2: Sex incidence.

Sex	No. of Cases	Percentage
Males	37	74
Females	13	26
Total	50	

Out of 50 cases studied, there were 37 male patients and 13 female patients. In this study males were affected more than the females.

Table 3: Symptoms.

Symptoms	No. of cases	Percentage
Pain	50	100
Distention	39	78
Constipation	22	44
Vomiting	29	58

The most common symptom in our study was pain abdomen, present in all 50 cases followed by distention in 30 cases (78.00%), vomiting 29 cases (58.00%) and least being constipation in 22 cases (44.00%).

Table 4: Signs.

Signs	No. of cases	Percentage
Tenderness	48	96
Guarding	48	96
Rigidity	46	92
Liver dullness obliteration	33	66
Shock	16	32
Tachycardia	23	46

In the present study majority (48) of cases presented with tenderness and Guarding. Rigidity was noted in 46 cases, and liver dullness was obliterated in 33 cases. Tachycardia was noted in 23 cases. Diagnosis of shock was made in 16 cases.

Table 5: Causes of acute abdomen.

Causes of acute abdomen	No. of patients
Non traumatic	37
Traumatic	13

Out of 50 cases 37 were due to non-traumatic abdominal pathology and 13 cases were caused by traumatic factor.

DISCUSSION

Acute abdominal pain is one of the most frequent complaints of patients presenting to the ED. It continues to pose diagnostic challenges for emergency clinicians and primary care doctors.[3] To the patients, the risks are missed diagnosis, over-investigation and even an undue intervention. All patients with abdominal pain do not

require extensive diagnostic tests. Sometimes, adequate history and physical evaluation alone is sufficient to accurately diagnose the condition and treat accordingly. Patients may present with vague complaints and varying associated symptoms making diagnosis difficult which ranges from benign to life-threatening conditions.[4] Abdominal pain can be the manifestation of a spectrum of disease processes. Conditions causing acute abdominal pain may vary, from conditions needing immediate intervention, to relatively mild presentations needing careful observation to avoid over investigation and unnecessary interventions. Patients may have acute exacerbations of chronic problems (e.g., peptic ulcer disease, pancreatitis, and inflammatory bowel disease), acute surgical abdomens (e.g., appendicitis, intestinal perforation, and acute volvulus) or non-surgical abdominal emergencies (e.g. ureteric colic, biliary colic, and acute gastroenteritis).

In our study, Out of 50 cases 13 were from this age group. Next common age group was between 31-40 years, which constituted 10 cases followed by 51-60 age groups, which constituted 8 cases.

The most common symptom in our study was pain abdomen followed by distention in 30 cases (78%), vomiting 29 cases (58%) and least being constipation in 22 cases (44%).

Out of 50 cases 37 were due to non-traumatic abdominal pathology and 13 cases were caused by traumatic factor.

Causes of acute abdominal pain include both medical and surgical.[5] 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.[6] A study done in Ghana, Africa, also reported acute appendicitis followed by typhoid fever with ileal perforation and acute intestinal obstruction as most commonest causes of acute abdominal pain.[7] 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%).[8] In our study, ureteric colic (26.3%), UTI (22.5%), acute pancreatitis (17%) and acute appendicitis (16%) were the most common reasons for ED visits due to abdominal pain. No specific diagnosis could be established in 9.5% of patients. An audit done by Irvin on 1190 acute surgical admissions of which 47% were operated upon.[9] In our study, surgery was performed on 25.8% of patients. The significant difference in percentages may be due to the fact that this study was done in the emergency department; while the one by Irvin was in an acute surgical set-up.[9] The mortality rate among our study group was 2.3%, which is comparable with other studies.[7]

CONCLUSION

It is extremely important to develop the skill of identifying patients with an "acute abdomen" requiring immediate surgical intervention.

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