

A Study on Etiology and Clinical Features of Pain Abdomen in a Tertiary Care Hospital

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ABSTRACT

Background: Pain Abdomen is most common presenting complaint in surgical practise. Abdominal pain is the accounting for 6% to 9% of all emergency department visits. Pain abdomen includes Gynaecological and Urological causes also and sometimes medical causes also included. One of the most common chronic causes in India is Peptic Ulcer. And common causes of acute abdomen are Acute appendicitis, Peritonitis, Intestinal Obstruction and Pancreatitis. It is important to remember that pain severity does not necessarily correlate with severity of the under lying condition.

Materials and Methods: This study has been conducted in Government Medical College, Suryapet, for 6months from March 2021 to September 2021, in the department of General Surgery.

Results: We have examined 450 patients, from March 2021 to September 2021. Out of these 450 patients, 245 are male, 205 are female patients. The age group involved is between 20 years and 70 years. The common age group is from 30 years to 40 years.

Conclusion: Pain abdomen is most common presenting complaint in surgical practise. Most common case of chronic

pain abdomen in India is Peptic Ulcer. Common causes of acute pain abdomen are Acute appendicitis, Peritonitis, Intestinal Obstruction, Renal colic and Pelvic Inflammatory Diseases (PID). Early diagnosis and early Management can prevent the mortality in many acute abdomen conditions.


Keywords: Pain Abdomen, Peptic Ulcer, Appendicitis, Intestinal Obstruction, Peritonitis.

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INTRODUCTION

Abdominal pain is a common complaint of patients attending surgical department and emergency department. Abdominal pain accounts for 6% to 9% of all surgical departments and emergency department visits.¹

Most of the patients' symptoms are self-limiting. But few patients will have serious problems like acute appendicitis, peritonitis, intestinal obstruction, renal colic, torsion ovarian cyst, ectopic pregnancy. Cholecystitis and Ischemia of bowel. Causes of chronic pain abdomen are, non-specific, peptic ulcer, psychogenic, hepatitis, carcinomas. Acute abdomen is defined as "A spectrum of surgical, medical and gynaecological conditions ranging from trivial to life threatening conditions, which require hospital admissions, investigations and treatment.² Most common cause of acute pain abdomen is Acute appendicitis. Most common cause of chronic pain abdomen are peptic ulcer and psychogenic. Pain abdomen is varying from one disease to one disease in region wise in character, radiations and associate features like

vomiting, fever, tenderness, tachycardia, rigidity, haematuria.³ Pain abdomen in Majority of conditions will start as dull aching pain. Medical causes of pain abdomen include gastritis, viral hepatitis, pancreatitis, diabetic ketoacidosis, and acute porphyria's.

The elderly patients have atypical presentation with longer duration of pain abdomen. Associated features like vomiting, fever, tenderness, rigidity will have diagnostic value. The investigations like ultrasound abdomen, CT scan of abdomen and MRI of abdomen are plays major role in the diagnosis. The pain abdomen due to psychogenic causes is vague in area of the abdomen and non-specific in character and not related to food habits and sometimes increases in severity and may be confusing with acute abdomen. Whereas the pain abdomen due to peptic ulcer is sharp shooting type are burning type mostly in epigastric area and related with food habits and aggravated by fasting, smoking, alcohol and spicy food.

MATERIALS AND METHODS

This study has been conducted for 6 months from March 2021 to September 2021, in the department of General Surgery and Emergency medicine department in government medical college, Suryapet, (Telangana State). We have examined 450 number of patients. Out of these 450, 245 are male patients and 205 are female patients. Consent has been obtained from all these patients and their relatives, by giving consent forms in their local

language. After obtaining complete clinical history, we have examined all the patients in detail, and we have advised all the investigations like complete blood picture, random blood sugar, blood urea, serum creatinine, serum electrolytes, blood grouping and cross matching, x-ray erect abdomen, ultrasound abdomen, CT scan abdomen. After collection of data, compiled in systematic manner and computerised by using MS Office.

Table 1: Different age Groups Male and Female (450)

Age Grp in Years	No. of Pts Male (245)	No. of Pts Female (205)
20 – 29	52 (21.22%)	42 (20.6%)
30 – 39	71 (28.9%)	65 (31.7%)
40 – 49	45 (18.4%)	38 (18.5%)
50 - 59	40 (16.9%)	34 (16.7%)
60 - 70	37 (15.1%)	26 (12.8%)

Table 2: Different Causes of Pain Abdomen

Causes	No. of Pts Male (245)	No. of Pts Female (205)
Peptic Ulcer	47 (20.9%)	39 (19.2%)
Psychogenic	44 (17.9%)	37 (18.5%)
Acute Appendicitis	41 (20.1%)	32 (15.6%)
Intestinal Obstruction	34 (18.5%)	30 (14.6%)
Renal colic	32 (15.2%)	27 (13.17%)
Pelvic Inflammatory Disease		32 (15.6%)
Peritonitis	30 (12.6%)	6 (2.9%)
Others	17 (6.9%)	3 (1.45%)

Table 3: Different Clinical Features

Clinical Features	No. of Pts Male (245)	No. of Pts Female (205)
Pain abdomen	245 (100%)	205 (100%)
Vomiting's	197 (80.4%)	165 (81.5%)
Feaver	92 (37.5%)	71 (34.8%)
Tachycardia	75 (30.6%)	32 (15.6%)
Rigidity	48 (20.5%)	14 (6.82%)

RESULTS AND DISCUSSION

Pain abdomen is commonest symptom in General Surgery practise. Not only surgical but also Urological, Gynaecological and Medical diseases also can present with pain abdomen.⁴ We have examined total number of 450 patients in this study out of these 450, male patients were 245 and female patients were 205. The age group involved in this study is between 20 years to 70 years. The commonest age group is between 20 years and 40 years.⁵ This study conducted by Emergency surgical services in Sub Saharan African country of males 52% and 45% females in this age group. In our study 20 - 40 years group has nearly 49% in males and 51% in females. In 6th and 7th decade 15% of males and 12.5% females are affected peptic ulcer, acute appendicitis and psychogenic pain abdomen are very common in young age group.

The chronic pain abdomen due to psychogenic and peptic ulcer are very common in 2nd and 3rd decade. In our study, psychogenic pain abdomen affects 17.9% in males and 18.5% in females. Peptic ulcer affects 20.9% males and 19.2% females. The study conducted by Agboola JO et al Shows 21.5% In males and 23.2% In females.⁶ The percentage among clinical features, pain abdomen is present in 100% cases. Vomiting's present in 80.4%

of male and 81.5% in female patients; fever is presented in 37.5% of male patients and 34.8% of female patients; tachycardia is 30.5% of male patients and 15.6% of female patients; rigidity is present according to study conducted by Laurell H, Hansson LE, Gunnarsson U pain abdomen (100%); vomiting's 62%; fever in 29.5% and rigidity is present in 13.4%.⁷

Pain abdomen is very common symptom in Surgical practise, the causes include urological, gynaecological and medical and psychological. Chronic causes of pain abdomen include peptic ulcer, psychological, pelvic inflammatory diseases, arsenic poisoning, lead poisoning and certain types of neoplasms. Some inflammatory conditions like inflammatory bowel diseases, Amoebic dysentery are also presents with pain abdomen, but those conditions are always associated with diarrhoea and other conditions.⁸ Anatomically the abdomen is divided into 9 regions, 1. Right hypochondrium, 2. Epigastric, 3. Left hypochondrium, 4. Umbilical, 5. Right lumbar, 6. Left lumbar, 7. Right Iliac Fossa, 8. Hypogastric, 9. Left Iliac Fossa, based on these areas, clinicians can identify underlying organs and the diseases which will affect them. Acute abdomen is defined as spectrum of surgical, medical and gynaecological conditions ranging from trivial to life threatening

conditions, which requires hospital admissions, investigations and treatment.⁹ The possible causes of acute abdomen may range from benign and psychogenic pain to life threatening aortic dissection. In our study the common causes of pain abdomen are acute appendicitis, In males 20.1% and in Females 15.6%; Intestinal obstruction in Males 18.5% and in Females 14.8% ; Peritonitis in Males 12.6%, in Females 2.9% ; Renal Colic 15.2% in Males and in Females 13.5% and Petric inflammatory diseases are 15.6%.¹⁰ Different conditions will have different characteristics features of pain abdomen. In peptic ulcer the pain starts in epigastric region, sharp and burning type of pain and sometimes radiates to back, it relates to food habits, the pain due to psychogenic causes is vague and not related to particular region, dull aching to sharp shooting type of pain, and may be associated with nausea and not related to food habits.

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).

An audit done by Irvin on 1190 acute surgical admissions of which 47% were operated upon. 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.

In our study no specific diagnosis could be established in 6.9% of patients. Conditions like Dengue fever can also cause abdominal pain as reported by Wong et al. A study conducted by Staniland et al. suggests that diagnostic accuracy in acute abdomen is around 65% and is mostly by pattern matching and for this reason a common approach or policy would result in missing a third of all the patients because they present with atypical pain abdomen. The approach to such a common complaint with complex presentations and spectrum of aetiologies is not easy, but a conscious effort on part of the emergency physician can reduce mortality and morbidity.

CONCLUSION

Pain abdomen is most common presenting complaint in surgical practise. Most common case of chronic pain abdomen in India is Peptic Ulcer. Common causes of acute pain abdomen are acute appendicitis, peritonitis, intestinal obstruction, renal colic and

pelvic inflammatory diseases (PID). Early diagnosis and early Management can prevent the mortality in many acute abdomen conditions.

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