

Acute Abdomen, Causes and Outcome - Experience at DHQ Hospital Abbottabad

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ABSTRACT

Background: Acute abdominal pain is one of the most frequently encountered symptoms in patients seeking emergency treatment. Acute and severe abdominal pain, however, is almost always a symptom of intra-abdominal disease. Abdominal pain in neonates, infants, and young children has numerous causes not encountered in adults. Evaluation of mild and severe pain follows the same process, although with severe abdominal pain, therapy sometimes proceeds simultaneously and involves early consultation with a surgeon. History and physical examination usually exclude all but a few possible causes, with final diagnosis confirmed by judicious use of laboratory and imaging tests.

Objectives: To find out the most common causes of acute abdomen in the region.

Study Design: Retrospective study

Place and Duration of Study: This study was conducted at DHQ Teaching Hospital Abbottabad from April 2011 to March 2012

Patients and Methods: Total 1056 patients were admitted with pain abdomen during this period. Patients of all ages were included. Patients with blunt and penetrating trauma to the abdomen were excluded. The patients were divided into 05 age groups. Patients were investigated with physical examination, ultrasonography, X-ray abdomen and blood complete picture, serum amylase and serum LFT's. Preoperative diagnosis and post operative findings were compared and evaluated.

Results: The most common age group was 16-30 yrs (42.5%) and 2nd most common group was 1-15 yrs (28.5%). The most common cause found was acute appendicitis (48.2%). The 2nd common cause was non-specific abdominal pain (16.15%). Total of 645(61%) out of 1056 patients reported with acute abdomen were operated while 411(39%) patients were managed conservatively.

Conclusion: Acute appendicitis was the most common cause of pain abdomen in patients of ages 5-30 years followed by non-specific abdominal pain. Life-threatening causes should always be ruled out before focusing on less serious diagnosis. Ultrasonography of abdomen and pelvis should be done routinely in every female patient with acute lower abdominal pain to rule out gynaecological causes of acute abdomen.

Key Words: Acute abdomen, pain abdomen, acute appendicitis.

INTRODUCTION

Acute abdominal pain is one of the most common symptoms encountered in patients seeking emergency treatment. Acute and severe abdominal pain, however, is almost always a symptom of intra-abdominal disease, the correct early diagnosis and treatment of which is essential for a favorable outcome. The acute abdomen is test of clinical acumen of the clinician. Evaluation of mild and severe pain follows the same protocol. Some of the causes are minor but some are immediately life threatening, requiring rapid diagnosis and surgery. Life-threatening causes should always be ruled out before focusing on less serious diagnoses. It may be the sole indicator of the need for surgery and must be attended to swiftly. Conditions resulting in an acute abdomen can cause serious complications or even death, especially if there is a delay in diagnosis and appropriate therapy. Gangrene and perforation of the gut can occur < 6 hr from onset of symptoms in certain conditions (eg, interruption of the intestinal blood supply due to a strangulating obstruction or an arterial

embolus). History and physical examination usually exclude all but a few possible causes, with final diagnosis confirmed by judicious use of laboratory and imaging tests. Abdominal pain is of particular concern in patients who are very young or very old and those who have HIV infection or are taking immune suppressants (including corticosteroids) and they may have difficulty in localizing the pain.

PATIENTS AND METHODS

Total 1056 patients were treated during this period. Patients of all age groups were included. Both male and female patients were included in study. The patients were divided into 05 age groups. Patients were investigated with physical examination, ultrasonography, X-ray abdomen, blood complete picture, serum amylase and LFTs. All patients with blunt and penetrating trauma to the abdomen were excluded. Ultrasonography of abdomen and pelvis was done in female patients with acute lower abdominal pain to rule out gynaecological causes of acute

abdomen in which other investigations were inconclusive.

RESULTS

The most common age group presenting with acute abdominal pain was 16-30 yrs n=446 (42.5%) and 2nd most common group was 1-15 years n=300 (28.4%). The no. of patients from 31-45 years were n=158(15%). There were only 48(4.5%) patients in 61 and above age group. Acute appendicitis was most common cause n=510(48.2%) followed by non-specific abdominal pain n=171(16.1%). Acute cholecystitis (10.3%), acute intestinal obstruction (0.94%), GIT perforation (0.85%), renal colic (11.4%), gastritis (6.5%) acute pancreatitis (0.75%), intestinal colic (2.65%) and ovarian pathology (0.94%). Preoperative diagnosis was wrong in 1.7%(n=18) of cases in whom mesenteric lymphadenitis was diagnosed after opening the abdomen, while 07 (0.66%) cases of acute gynaecological problems were identified after opening the abdomen through gridiron incision on suspicion of acute appendicitis.

Table No.1: Age wise distribution n=1056

Age in years	No. of patients	Percentage
1-15	300	28.4
16-30	446	42.4
31-45	158	15
46-60	104	9.8
61 and above	48	4.5

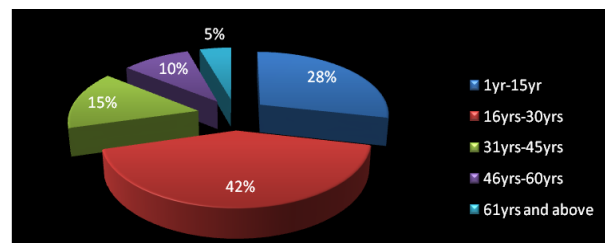


Figure No.1: Age wise distribution

Table No.2 Causes of Acute Abdomen n=1056

Disease	No. of patients	Percentage
Acute appendicitis	510	48.2
Acute cholecystitis	109	10.3
Renal/ureteric colic	121	11.4
Gastritis	65	6.15
Non specific pain	171	16.1
Intestinal obstruction	10	0.94
Intestinal colic	28	2.65
Ovarian	10	0.94
Gut perforations/ peritonitis	09	0.85
Acute pancreatitis	08	0.75
Abdominal growth	12	1.13
Obstructive jaundice	03	0.28

Meckel's diverticulitis was found in 05 cases (0.47%), and 01 case (0.1%) of ileo-caecal tuberculosis was found. Appendicectomy was performed in all above cases to avoid future diagnostic confusion except in ileo-caecal tuberculosis.

Table No.3 Breakdown of Acute Appendicitis n=510

Age in years	No. of patients	Percentage
1-15	211	41.4
16-30	256	50.2
31-45	34	6.7
46-60	6	1.2
Above 60	3	.50

Table No.4: Treatment of Patients with Acute Abdomen n=1056

Operated	645	61%
Non-operated	411	39%

DISCUSSION

The term "acute abdomen" denotes any sudden spontaneous non-traumatic disorder of the abdomen. The term acute abdomen should not be equated with the invariable need for operation. In our study 61% of patients with acute abdomen were operated. Non surgical and extra abdominal causes of acute abdomen should always be kept in mind while making diagnosis and planning treatment. Because appendicitis is a common disease, it must remain in the differential diagnosis of any undiagnosed patient with persistent abdominal pain, particularly the right lower quadrant pain. Our study also revealed acute appendicitis to be the most common cause followed by Non specific abdominal pain. In our study preoperative diagnosis was wrong in (n=18)1.7% of cases, indicating the need for using other diagnostic tools besides detailed history, clinical examination and routine investigations. It is recommended that ultrasonography of abdomen and pelvis should be done routinely in every female patient with acute lower abdominal pain to rule out any gynaecological cause of acute abdomen. In our study we did not use ultrasonography routinely in every female resulting in error in diagnosis in some of the cases. Another study conducted in Germany revealed that the most frequent cause was acute appendicitis, followed by cholecystitis and non-specific abdominal pain. These three diseases together were the causes of acute abdomen in more than 80% of cases. Another study conducted at Combined Military Hospital Kharian from Oct 2001 to Mar 2002 revealed acute appendicitis as the common cause of acute abdomen(21.4%), followed by nonspecific abdominal pain (15.4%) and acute cholecystitis (12.7%). Making the correct diagnosis is never easy. It demands attention to detail in taking the history and examining the patient and analyzing the information. Patients labelled as having NSAP does not mean that there was no cause

but it does mean that our skill in making a diagnosis needs to be improved.

CONCLUSION

Acute appendicitis is the most common cause of pain abdomen in patients of ages 5-30 years followed by non-specific abdominal pain. Life-threatening causes should always be ruled out before focusing on less serious diagnosis. Ultrasonography of abdomen and pelvis should be done routinely in every female patient with acute lower abdominal pain to rule out gynaecological causes of acute abdomen.

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