

A Study of Clinical Profile of Acute Pancreatitis In AMC MET Medical College A Retrospective Study

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Abstract: Background: Acute pancreatitis is a common disease with wide clinical variation and its incidence is increasing. Acute pancreatitis includes a wide spectrum of disease, from mild self limiting symptoms to a fulminant process with multiple organ failure and high mortality. Severity of acute pancreatitis is linked to the presence of systemic organ dysfunctions and/or necrotizing pancreatitis. Aim and objectives: The present study was aimed to study etiology and complications of acute pancreatitis, to assess the clinical profile of acute pancreatitis. Method: This was a hospital based cross sectional study was performed in AMCMET Medical college and Lg hospital Ahmadabad from January 2014- December 2015 to find out the clinical presentations of acute pancreatitis. All patients with a diagnosis of acute pancreatitis were included in this study with its clinical, laboratory investigations and radiological data. Result: Of the 250 patients in this study, 150 were male (average age, 41 years) and 100 were female (average age, 32 years). Minimum age in my study is 12 years and maximum age is 70 years. Maximum number of patient is below 45 years of age that is 180 (72%) patient. In my study, 60 % male patient developed acute pancreatitis and 40 % of female. Alcohol identified as the most important etiologic factor associated with pancreatitis. Also incidence of alcohol association with acute pancreatitis was significantly increased in male, while gall stone pancreatitis was predominantly a disease of the female. Abdominal pain and vomiting were the most consistent symptoms in our study. Epigastric tenderness is present in 92% of cases. Guarding /rigidity are present in 52% of patient. 24% patient show jaundice as a sign of acute pancreatitis. CT grading system can identify patient at higher risk of mortality more accurately than clinical grading system; on other hand clinical grading system identify patient at risk of organ failure and requiring icu admission more accurately, so there is no major difference between both grading system. Conclusion: acute pancreatitis is one of the leading cause for increase morbidity and mortality to society. Clinical assessment along with lab markers correlated well with the mortality and morbidity. Multiple organ failure, icu admission and mortality are higher in pancreatitis present with necrosis. [K Suthar, Natl J Integr Res Med, 2018; 9(2):8-11]

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Introduction: Acute pancreatitis is an acute inflammatory process of the pancreas with variable involvement of regional tissues and remote organ systems¹. The average mortality rate in severe acute pancreatitis approaches 2-10 %². The American College of Gastroenterology (ACG) practice guidelines provide acceptable terminology for the classification of Acute Pancreatitis and its complications³. Acute Pancreatitis is broadly classified (the Atlanta classification) as mild and severe: Mild acute pancreatitis is often referred to as interstitial pancreatitis, based on its radiographic appearance. Severe acute pancreatitis implies the presence of organ failure, local complications, or pancreatic necrosis. Interstitial pancreatitis implies preservation of pancreatic blood supply; necrosis suggests the disruption of pancreatic blood supply with resulting ischemia.

Most cases of acute pancreatitis fall into the mild category, with favorable recovery. However 15% to

20% cases of acute pancreatitis are severe and may result in a prolonged hospitalization, and local as well as systemic complications like systemic inflammatory response syndrome (SIRS), multi-organ system failure and death⁴. With acute pancreatitis the inflammation comes on quickly over a few hours and usually goes away, leaving no permanent damage. However, it can be fatal if complication occurs. There are many causes of acute pancreatitis, but the mechanisms by which these conditions trigger pancreatic inflammation have not been identified. Gallstone and alcohol abuses are the main causes of acute pancreatitis. The severity of Acute Pancreatitis can be predicted based upon clinically laboratory and radiological risk factors various severity grading system and serum markers. Some of this can be performed on admission to assist in triage of patient while others can be obtained during 1st 48 -72 hours or later. Severe acute pancreatitis is characterized by a short course, progressive MODS, early hypoxemia, increased incidence of necrosis, infection, and

abdominal compartment syndrome (ACS)⁵. Multiorgan dysfunction syndrome, the extent of pancreatic necrosis, infection, and sepsis are the major determinants of mortality in Acute Pancreatitis⁶. Pancreatic necrosis is considered as a potential risk for infection, which represents the primary cause of late mortality. Occurrence of acute respiratory (ARF), cardiovascular (CVF), and renal failures (RF) can predict the fatal outcome in SAP⁷. Early accurate diagnosis is very important for its management. Symptoms of acute pancreatitis vary considerably. For this reason the clinician must carefully evaluate information derived from other sources that supplement the history and physical examination including laboratory tests, imaging studies before arriving at a correct diagnosis of acute pancreatitis. If the cause of the attack can be eliminated there will be no further attacks and the pancreas will return to normal in terms of its morphology and function⁸. Management of acute pancreatitis has changed significantly over the past years. Early management is nonsurgical, solely supportive and patients with infected necrosis with worsening sepsis need intervention. Early intensive care has definitely improved the outcome of patients⁹.

Method: This was a hospital based retrospective cross sectional study was performed in department of medicine and department of surgery at AMCMET Medical college and LG hospital Ahmadabad from MAR 2014- FEB 2016 to find out the clinical presentations of acute pancreatitis. All ages of both sexes of patients were included, the diagnosis of acute pancreatitis was based on the presence of appropriate clinical evidence associated with an elevation of serum amylase and/or urinary amylase. Patients with chronic pancreatitis and pancreatic malignancy were excluded from the study. On admission, detailed history was taken. Age, sex, address, symptoms and signs were noted. Relevant past history, family history and personal history, specially alcohol consumption were recorded. General examination emphasized on temperature, pulse, blood pressure, cardiovascular and respiratory system, jaundice, cyanosis and other general signs of acute pancreatitis. Necessary investigations were carried out. More specific investigations like serum lipase estimation were also done. USG abdomen & pelvis was done in all patients to evaluate for the presence of gall stones. CT scan was done after 72 hours of admission. ERCP was done in patients with gall stones and were jaundiced at the

time of admission. All patients were initially subjected to conservative measures. Surgical procedures whether for the acute attack or complications, are also mentioned.

Results: Of the 250 patients in this study, 150 were male (average age, 41 years) and 100 were female (average age, 32 years).

Table 1: Age wise distribution of cases

Age	No. of cases	%
15-30	80	32%
31-44	100	40%
45-54	40	16%
55-64	00	0%
65-74	30	12%
>74	00	0%

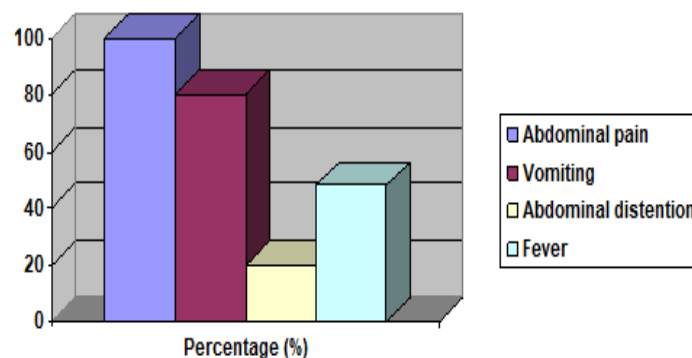
Minimum age in my study is 12 years and maximum age is 70 years. Maximum number of patient is below 45 years of age that is 180 (72%) patient. In my study, 60 % male patient developed acute pancreatitis and 40 % of female.

Table 2: Sex wise distribution of cases

Etiology	No. of cases		In my study (%)
	Male	Female	
Biliary disease	10	40	20 %
Alcoholism	120	00	48 %
Idiopathic	30	50	32 %
Traumatic	10	0	04 %

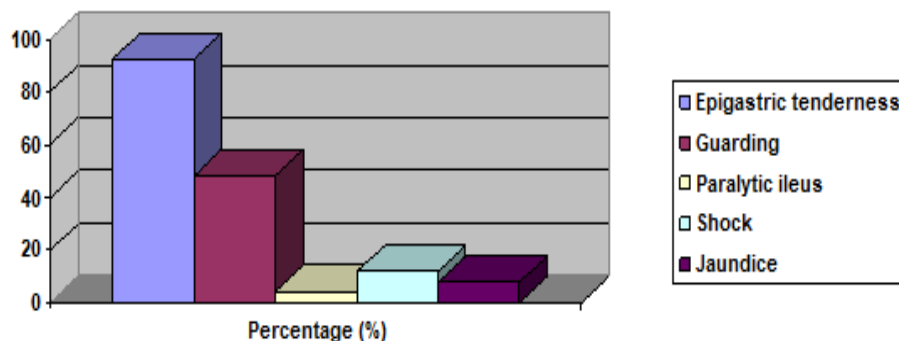
In my study, alcohol identified as the most important etiologic factor associated with pancreatitis. Also incidence of alcohol association with acute pancreatitis was significantly increased in male, while gall stone pancreatitis was predominantly a disease of the female.

Figure: 1 Symptom wise distribution of cases



Abdominal pain and vomiting were the most consistent symptoms in our study. In Maingot's Abdominal operations- "Acute Pancreatitis", it is stated that abdominal pain was present in 85-100%.

Figure:2 Sign Wise Distribution



Epigastric tenderness is present in 92% of cases. Guarding /rigidity are present in 52% of patient. 24% patient show jaundice as a sign of acute pancreatitis.

Table 3: According to clinical grades

Clinical grade		Hospital stay in days(avg.)	ICU admission	Organ failure	Mortality
Acute edematous (mild)	170	9+ ₂	25(14.7%)	17(10%)	2(1.1%)
Acute necrotising (severe)	50	14+ ₁	40(80%)	35(70%)	10(20%)
Acute on chronic pancreatitis	30	7	0	0	0
Total	250				

Table 4: According To CT Grades

CT grade		Hospital stay(avg.)	ICU admission	Organ failure	Mortality
Normal	20	6	0	0	0
Grade 1-2	180	8+ ₂	30(17%)	21(12%)	0(0%)
Grade 3-5	50	15+ ₃	40(80%)	30(60%)	14(28%)
Total	250				

According to above table we can say that ct grading system can identify patient at higher risk of mortality more accurately than clinical grading system; on other hand clinical grading system identify patient at risk of organ failure and requiring ICU admission more accurately, so there is no major difference between both grading systems.

Discussion: This was a retrospective study on 250 cases of acute pancreatitis. Only those cases who were admitted into LGGH from MAR 2014 to FEB 2016 were subjected to study. Hence these results cannot be considered to represent results of acute pancreatitis cases in the community. In our study the youngest patient was of 12 years, the oldest was of 70 years. In our study, 60 % male patient developed acute pancreatitis and 40 % of female. Besselink MGH, et al¹⁰. Found median age of presentation as 53 years (range: 18–86 years) and 55% were males. In our study 120 (48%) patients were alcohol addict. 50 (20%) patients had documented gall stone induced

pancreatitis. In 80 (32%) patients no obvious cause of pancreatitis was found. Sivasankar A¹¹ found alcohol consumption in 11 (45.8 %), biliary microlithiasis in 2 (8.3%), blunt abdominal trauma in 1 (4.1%) and unknown cause of acute pancreatitis in 4 (16.6%) patients. In our study the most common symptom observed is abdominal pain (100%), followed by vomiting 80%, fever 48% and abdominal distension 20%. In our study epigastric tenderness was most commonly observed clinical sign 92% followed by guarding 48% shock 12% jaundice 9% and paralytic ileus 4%. In McMohan¹² study most patients had upper abdominal pain 'With radiation to the back in 50% cases, vomiting in 75% cases and respiratory distress was common in severe pancreatitis. In K U Ahmed et al¹³ the most common symptoms were upper abdominal pain (96%) with a radiation to back in most patients, nausea and vomiting (88%), abdominal distension (40%), fever (12%) and other symptoms in 4% cases and most common signs were abdominal tenderness (92%), abdominal mass (8%),

ascites (18%), jaundice (10%), muscle guard (66%) and other signs in 2% cases. In our study out of 250 pt. clinically 170 pts were diagnosed as mild (acuteoedematous pancreatitis) with average hospital stay 9±2 days, and 50 were diagnosed as severe (acute necrotizing pancreatitis) with average hospital stay 14±1 day. There were 30 pts had acute on chronic pancreatitis with average hospital stay 7 days. In our study pt diagnosed with mild pancreatitis 25(14.7%) pts required icuadmission, 17(10%) developed organ failure and mortality of 2(1.1%) pts. While 40 (80%) pts required icu admission, 35(70%) pts developed organ failure and mortality of 10(20%) pts. In study done by Patel S at el¹⁴ 15% patients were in shock and required ionotropic support, 25% had respiratory failure, 35% had renal failure and 6% had multi organ failure at admission, 25% morality in necrotizing pancreatitis.

Conclusion: acute pancreatitis is one of the leading causes for increase morbidity and mortality to society. Cincinal assessment along with lab markers correlated well with the mortality and morbidity. Multiple organ failure, icu admission and mortality are higher in pancreatitis present with necrosis.

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