

Original Research

To find out the clinical presentation of acute pancreatitis in a tertiary care hospital

Dr. Somen Jha¹, Dr Pawan Kumar²

^{1,2}Senior Resident, Dept. Of General Surgery, Jawaharlal Nehru Medical College Bhagalpur, Bihar

ABSTRACT:

Background: Acute pancreatitis (AP) is one of the most common gastrointestinal causes for hospitalization. The diagnosis of AP begins early on in a patient's course and should be suspected in patients presenting with clinical symptoms and features consistent with AP. Hence; the present study was conducted for assessing the clinical profile of patients with acute pancreatitis. **Materials & methods:** A total of 200 patients with confirmed diagnosis of AP were enrolled. Complete demographic and clinical history of all the patients was recorded. Clinical manifestations were recorded in separate Performa. Patients with presence of any malignancy neoplasm or any pancreatic tumour were excluded from the present study. Complications were also recorded. All the results were recorded in Microsoft excel sheet and were analysed by SPSS software. **Results:** Mean age of the patients was found to be 53.8 years. Alcohol was the most common etiologic factor found to be present in 58 percent of the patient population. Abdominal pain was seen in 100 percent of the patients. Abdominal distension was seen in 44 percent of the patients. Nausea / vomiting were seen in 46 percent of the patients while fever was seen in 44 percent of the patients. The most common local complication was acute fluid collection, seen in 25 percent of the patients. **Conclusion:** Abdominal pain, abdominal distension, tachycardia, nausea/vomiting and fever are the most common clinical manifestations seen in AP patients.

Key words: Abdominal pain, Acute pancreatitis

Received: 23/07/2020

Modified: 26/08/2020

Accepted: 28/08/2020

Corresponding Author: Dr Pawan Kumar, Senior Resident, Dept. Of General Surgery, Jawaharlal Nehru Medical College Bhagalpur, Bihar

This article may be cited as: Jha S, Kumar P. To find out the clinical presentation of acute pancreatitis in a tertiary care hospital. J Adv Med Dent Scie Res 2020;8(9):250-253.

INTRODUCTION

Acute pancreatitis (AP) is one of the most common gastrointestinal causes for hospitalization. The burden of the disease on the healthcare resource utilization is expected to increase in the near future. Despite the improvement we have seen in access to healthcare, imaging modalities and interventions, AP continues to have significant morbidity and mortality that has largely remained unchanged over time.^{1,2} In acute pancreatitis, the pancreatic enzymes amylase, lipase, elastase, and trypsin are simultaneously released into the bloodstream. As the clearance of each of these enzymes varies, the timing of the blood sampling from the onset of acute pancreatitis affects the test's sensitivity.^{3,4}

The diagnosis of AP begins early on in a patient's course and should be suspected in patients presenting with clinical symptoms and features consistent with

AP - epigastric abdominal pain, nausea, vomiting, abdominal pain radiating to the back (seen in 40%-70% of patients). This pain can last several hours to several. Nausea has also been seen in about 90% of patients with AP which can last for several days as well.³⁻⁶ Hence; the present study was conducted for assessing the clinical profile of patients with acute pancreatitis.

MATERIALS & METHODS

The present study was conducted with the aim of assessing the clinical profile of patients with acute pancreatitis. A total of 200 patients with confirmed diagnosis of AP were enrolled. Complete demographic and clinical history of all the patients was recorded. Clinical manifestations were recorded in separate Performa. Inclusion criteria for the present study included:

- Patients within the age group of 15 to 75 years
- Patients with clinical, laboratorial and radiological findings (CECT abdomen) suggestive of acute pancreatitis

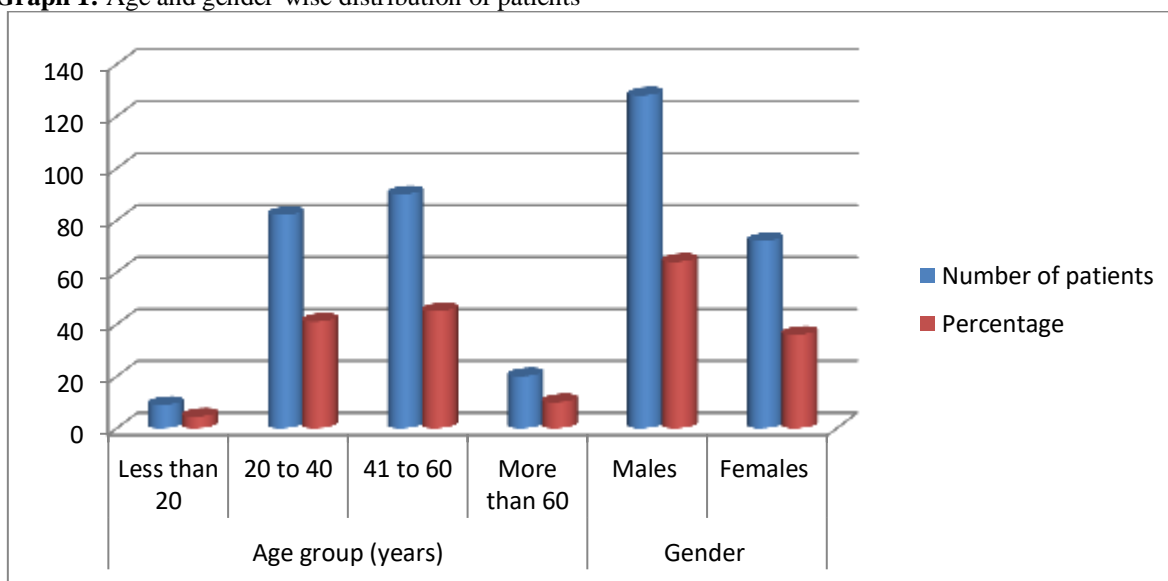
Patients with presence of any malignancy neoplasm or any pancreatic tumour were excluded from the present study. Complications were also recorded. All the results were recorded in Microsoft excel sheet and were analysed by SPSS software.

RESULTS

A total of 200 patients of acute pancreatitis were enrolled in the present study. Mean age of the patients was found to be 53.8 years. Forty five percent of the

patients belonged to the age group of 41 to 60 years. Sixty percent of the patients were males while the remaining were females. Alcohol was the most common etiologic factor found to be present in 58 percent of the patient population. Gall stone diseases were responsible for 25 percent of the cases. Abdominal pain was seen in 100 percent of the patients. Abdominal distension was seen in 44 percent of the patients. Nausea / vomiting were seen in 46 percent of the patients while fever was seen in 44 percent of the patients. Jaundice was present in 8 percent of the patients. The most common local complication was acute fluid collection, seen in 25 percent of the patients. Pancreatic necrosis was seen in 3 percent of the patients.

Graph 1: Age and gender-wise distribution of patients



Graph 2: Local complications

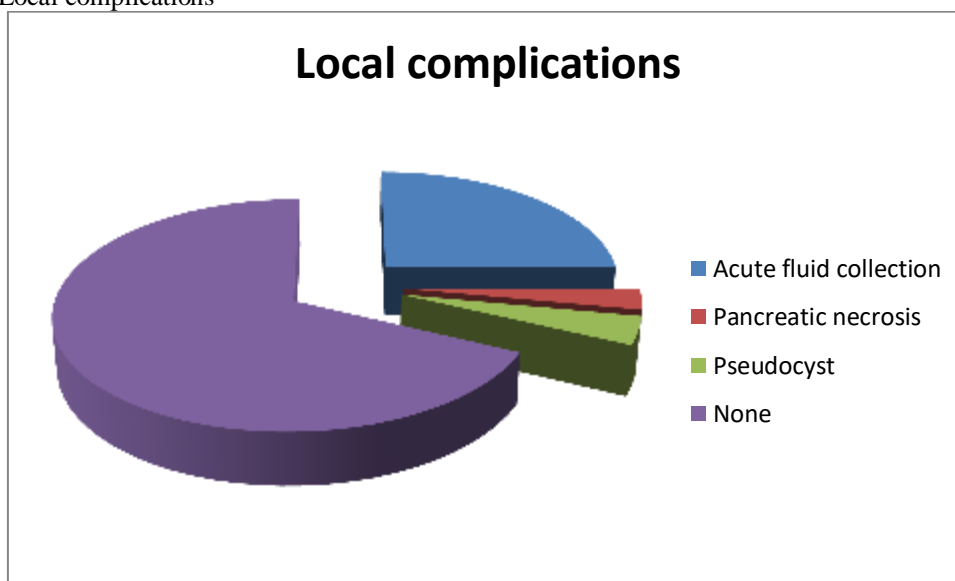


Table 1: Etiologic profile

| Etiology | Number of patients | Percentage |
|--|--------------------|------------|
| Alcohol | 116 | 58 |
| Gall stone disease | 50 | 25 |
| Post-Endoscopic retrograde Cholangiopancreatography (ERCP) | 12 | 6 |
| Others | 22 | 11 |

Table 2: Clinical profile

| Clinical profile | Number of patients | Percentage |
|----------------------|--------------------|------------|
| Abdominal pain | 200 | 100 |
| Abdominal distension | 88 | 44 |
| Tachycardia | 174 | 87 |
| Fever | 88 | 44 |
| Tachypnea | 78 | 39 |
| Dyspnea | 54 | 27 |
| Nausea / vomiting | 92 | 46 |
| Jaundice | 16 | 8 |

DISCUSSION

Acute pancreatitis is common and is the leading cause of hospitalization amongst gastrointestinal disorders in the United States. The severity of the disease varies widely, from mild disease needing conservative treatment to severe and complicated disease with high morbidity and mortality. In the majority of cases, alcohol use, gallstones, and hypertriglyceridemia cause acute pancreatitis. The rate of occurrence of each etiology of acute pancreatitis varies across geographic regions and socio-economic strata.⁷⁻⁹

Hence; the present study was conducted for assessing the clinical profile of patients with acute pancreatitis. In the present study, a total of 200 patients of acute pancreatitis were enrolled in the present study. Mean age of the patients was found to be 53.8 years. Alcohol was the most common etiologic factor found to be present in 58 percent of the patient population. Gall stone diseases were responsible for 25 percent of the cases. Vengadakrishnan K et al assessed the clinical profile of acute pancreatitis and to assess the efficacy of various severity indices in predicting the outcome of patients. A total of 110 patients were analysed. 50 patients required Intensive care, among them 9 patients (18%) died. 20 patients (18.2%) had multiple organ dysfunction syndrome, 15 patients (13.6%) had pleural effusion, 9 patients (8.2%) had pseudocyst, 2 patients (1.8%) had hypotension, 2 patients (1.8%) had ARDS and 2 patients (1.8%) had diabetic ketoacidosis. Initial assessment of severity by CRP, LDH and lipase could be reliable indicators of outcome in acute pancreatitis.¹⁰

In the present study, abdominal pain was seen in 100 percent of the patients. Abdominal distension was seen in 44 percent of the patients. Nausea / vomiting were seen in 46 percent of the patients while fever was seen in 44 percent of the patients. Jaundice was present in 8 percent of the patients. Ramu R et al assessed the etiologic and clinical profile of acute pancreatitis. Among 436 cases studied 318 (72.9%) were males and 118 (27.1%) were females. Epigastric

pain without radiation to the back (51.6%) was the most common clinical presentation. Alcohol was the most common etiologic factor seen in 42.4% followed by idiopathic pancreatitis (IP) (36.9% cases) and then by gallstone/biliary pancreatitis (14.5%). Acute fluid collection was the most common local complication seen in 29.1% cases and respiratory system involvement was the most common organ involvement seen in 16.5% of cases. Epigastric pain without radiation to the back was the most common clinical presentation.¹¹ In another study conducted by Chauhan YJ et al, authors analysed the etiologic profile of AP patients. Majority of patients 22 (44.0%) were in age group ranging from 41 to 60 years. Males were dominant (58%). The most common etiology was alcoholism followed by gall stone. The majority of patients were found with abdominal pain (100.0%). Increases in total leucocyte count, serum amylase level and low level of serum calcium were significantly associated with increase in pancreatic/extra-pancreatic complications leading to higher morbidity and hospital stay. Patients with higher Balthazar CTSI were having higher morbidity.¹²

In the present study, the most common local complication was acute fluid collection, seen in 25 percent of the patients. Pancreatic necrosis was seen in 3 percent of the patients. Clinical profile of acute pancreatitis in Malwa region of Punjab was assessed in another study conducted by Nagpal N et al. 50 patients with proven acute pancreatitis were included. Mean age recorded was 43.40 ± 12.004 years with a range of 19-64 years and male to female ratio 2.12:1. 62% of patients had alcohol induced pancreatitis and 32% had gall stone pancreatitis. Observed morbidity rate was 44% and mortality rate was 6%. Most common complications encountered were pleural effusion (18%), Hypocalcemia (20%) and sterile pancreatic necrosis (20%). They concluded that severe acute pancreatitis remains a significant cause of morbidity and mortality due to increased prevalence

both alcoholism and gall stone disease in Malwa region of Punjab.¹³

CONCLUSION

Abdominal pain, abdominal distension, tachycardia, nausea/vomiting and fever are the most common clinical manifestations seen in AP patients.

REFERENCES

1. Forsmark CE, Baillie J. [AGA Institute technical review on acute pancreatitis] *Rev Gastroenterol Mex.* 2007;72:257–285.
2. Tenner S, Baillie J, DeWitt J, Vege SS American College of Gastroenterology. American College of Gastroenterology guideline: management of acute pancreatitis. *Am J Gastroenterol.* 2013;108:1400–15; 1416.
3. Toouli J, Brooke-Smith M, Bassi C, et al. Guidelines for the management of acute pancreatitis. *J Gastroenterol Hepatol.* 2002;17:515–539.
4. Venneman NG, van Brummelen SE, van Berge-Henegouwen P, van Erpecum KJ. Microlithiasis: an important cause of “idiopathic” acute pancreatitis? *Ann Hepatol.* 2003;2(1):30–35.
5. Greenberg JA, Hsu J, Bawazeer M, Marshall J, Friedrich JO, Nathens A, Coburn N, May GR, Pearsall E, McLeod RS. Clinical practice guideline: management of acute pancreatitis. *Can J Surg.* 2016;59:128–140.
6. Gullo L, Migliori M, Oláh A, Farkas G, Levy P, Arvanitakis C, Lankisch P, Beger H. Acute pancreatitis in five European countries: etiology and mortality. *Pancreas.* 2002;24:223–227.
7. Lankisch PG, Assmus C, Lehnick D, Maisonneuve P, Lowenfels AB. Acute pancreatitis: does gender matter? *Dig Dis Sci.* 2001;46:2470–2474.
8. Mortelé KJ, Girshman J, Szejnfeld D, et al. CT-guided percutaneous catheter drainage of acute necrotizing pancreatitis: clinical experience and observations in patients with sterile and infected necrosis. *AJR Am J Roentgenol.* 2009;192:110. 144:1272.
9. Freeman ML, Werner J, van Santvoort HC, et al. Interventions for necrotizing pancreatitis: summary of a multidisciplinary consensus conference. *Pancreas.* 2012;41:1176.
10. Vengadkrishnan K, Koushik AK. A study of the clinical profile of acute pancreatitis and its correlation with severity indices. *Int J Health Sci (Qassim).* 2015;9(4):410-417.
11. Ramu R, Paul V, Devipriya S, Philip NC. Etiology, clinical profile and outcome of acute pancreatitis in a tertiary care teaching hospital in rural South India: a ten year retrospective study. *Int Surg J* 2019;6:3794-9.
12. Chauhan Y, Jindal N, Verma RK, Tyagi PK, Rana M, Singh S. A clinical profile and outcome of patients with acute pancreatitis: A prospective study in North India. *Arch Int Surg* 2018;8:132-8
13. Nitin Nagpal, Salvinder Singh Toor, D. S. Sidhu. Clinical profile of Acute Pancreatitis in Malwa region of Punjab and its correlation with Balthazar CT Severity Index. *IAIM,* 2016; 3(5): 1-7.