



A STUDY OF CLINICAL & ETIOLOGICAL PROFILE OF NON ALCOHOLIC ACUTE PANCREATITIS

Dr. L. Sahitya

M.D., D.M., Assistant Professor of Gastroenterology, Osmania Medical College / Osmania General Hospital, Hyderabad, Telangana.

Dr. V. Gopala Krishna*

MD., D.M., Assistant Professor of Gastroenterology, Osmania Medical College, Osmania General Hospital, Hyderabad, Telangana *Corresponding Author

ABSTRACT **Background:** To study the etiological factors and investigations to detect the cause in patients with pancreatitis in non alcoholics and the age sex distribution of patients presenting with pancreatitis of different etiologies, the severity and complication related to acute pancreatitis in non alcoholics. Total of 50 pancreatitis patients was admitted in Department of Gastroenterology, Osmania General Hospital. Patients with significant alcohol consumption. Among 50 cases patients with mild pancreatitis were 24(48%), moderate pancreatitis in 17 (34%), Severe Pancreatitis in 9 (18%) of patients. Most of the patients are presented with mild to moderate pancreatitis and various complications are observed in non alcoholic pancreatitis similar to alcoholic pancreatitis. Therefore the present study is designed to evaluate the clinical and Etiological profile of patients suffering from Non Alcoholic acute pancreatitis patients.

KEYWORDS : Non Alcoholic, Etiological Profile, Acute Pancreatitis

INTRODUCTION

Etiology of Pancreatitis continues to stir up controversy. The incidence of acute pancreatitis has been reported to vary between 4.9/100000 and 73.4/100000 around the world in different studies, Pancreatitis, which is most generally described as any inflammation of the pancreas, is a serious condition that manifests in either acute, chronic or acute on chronic forms leading to abdominal pain¹.

Acute pancreatitis has a sudden onset and short duration, whereas chronic pancreatitis develops gradually and worsens over time, resulting in permanent organ damage. It may result in progressive destruction of the exocrine tissue and in some patients a loss of endocrine tissue as well².

A number of situations can precipitate acute pancreatitis. Only a small fraction of patients with these predisposing factors develop the disease.

Example: 3 to 7% with gallstones, 10 percent of alcoholics, and few patients with hypercalcemia³

However owing to the tremendous reserve of pancreatic function, insufficiency may be subclinical at least in the beginning of the disease. The early diagnosis of pancreatitis and its complication is still difficult and natural history as well as the prognosis of the disease remains yet to be defined³.

The etiological profile of pancreatitis may be different in different parts of the world and it is therefore important that experiences from different parts of the country be recorded. Alcohol which was once thought to be most common etiology⁴.

Recent studies in western countries show that non alcoholic causes include more than 50% of causes of pancreatitis. Hence this study is needful to understand the various etiological factors, occurring in this part of Telangana⁵.

Definitions of Grades and Severity of Acute Pancreatitis

1. Mild Acute Pancreatitis
2. No organ failure
3. No local or systemic complications

Moderately Severe Acute Pancreatitis

1. Transient organ failure (<48 hours) and/or
2. Local or systemic complications without persistent organ failure

Severe Acute Pancreatitis

Persistent organ failure (>48 hours)—single organ or multiorgan

1. Local complications are peripancreatic fluid collections,
2. pancreatic necrosis and peripancreatic necrosis (sterile or infected),
3. pseudocyst, and walled-off necrosis (sterile or infected)

Complications

Among patients with acute pancreatitis, mortality was higher in those with severe acute pancreatitis. Organ failure is a serious complication of severe acute pancreatitis and is associated with higher mortality. Early in the course of the disease, organ failure can occur as a result of systemic inflammatory response syndrome and it could occur without the evidence of overt infection. Except for metabolic disorders and cardiovascular insufficiency, the incidences of ALI/ARDS, MODS, Renal failure and pancreatic encephalopathy in the elderly were significantly higher than those in the young. The other complications, such as GI bleeding, paralytic ileus, pancreatic pseudocyst, pulmonary infection, fungal infection, abdominal compartment syndrome (ACS) and disseminated intravascular coagulation (DIC), occurred less frequently (< 15%) in both the elderly and the young⁶.

AIMS AND OBJECTIVES

- 1) To study the etiological factors, and investigations to detect the cause in patients with pancreatitis in non alcoholics.
- 2) To study the age and sex distribution of patients presenting with Pancreatitis of different etiologies.
- 3) To study the severity and complications related to acute pancreatitis in non alcoholics.

MATERIALS AND METHODS

50 cases of pancreatitis admitted in Department of Gastroenterology who fulfilled the inclusion criteria were taken, Patients with significant alcohol consumption, patients with chronic pancreatitis are excluded. Duration of study: April 2016 to January 2018.

Cases of pancreatitis admitted in dept. of Gastroenterology were included. Detailed history was taken, physical examination was done and laboratory investigations for confirmation of diagnosis and finding out the etiology were done. For the cases in which etiology could not be found, further investigations were done.

Inclusion criteria: Patients admitted in our Institution with age more than 18 years. All patients should fulfill the diagnostic criteria.

Exclusion criteria: Cases with age less than 18 yrs were excluded, cases with chronic pancreatitis and Cases with alcohol as etiology.

Diagnostic Criteria

It includes clinical history s/o pancreatitis plus atleast one of the following

1. Elevated serum amylase and/or serum lipase levels atleast 3 times the upper limit of normal
2. Ultrasound or CT scan suggestive of pancreatitis

RESULTS

Among the 50 cases, 8 patients (16%) are 18-29 yrs, 12 patients (24%) are 30-39 yrs, 13 patients (26%) are 40-49 yrs, 8 patients (16%) are 50-59 yrs, remaining 9 patients (18%) are above 60 yrs.

Out of the 50 cases, 29 (58%) were males while 21 (42%) were females. In our study most common cause of non alcoholic pancreatitis is gallstone (38%), second most common is idiopathic pancreatitis (20%). Other causes are Hypertriglyceridemia (4%), Drugs (ART drugs, Azathioprine, Steroids) (8%), Hypercalcemia (4%), Autoimmune (2%), Trauma (6%), Infections (4%), Post ERCP (4%), Congenital (4%).

Among 50 cases patients with mild pancreatitis were 24 (48%), moderate pancreatitis in 17 (34%), Severe Pancreatitis in 9 (18%) of patients.

Complications observed are Pseudocyst of pancreas in 5 (10%), Pancreatic ascites in 2 (4%), Necrotizing pancreatitis in 4 (8%), Pleural effusion in 3 (6%), Acute Renal Failure in 2 (4%), ARDS in 1 (2%) of patients.

AGE – WISE DISTRIBUTION OF PATIENTS WITH PANCREATITIS

Age	No. of patients
18-29 yrs	8
30-39 yrs	12
40-49 yrs	13
50-59 yrs	8
>60 yrs	9

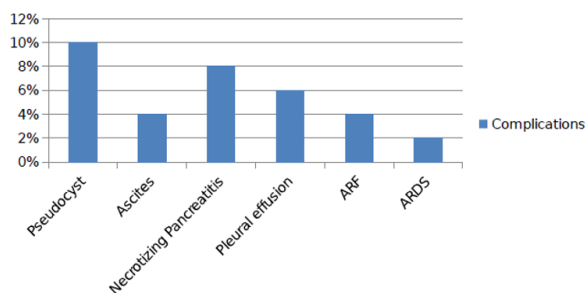
CAUSES OF PANCREATITIS

Etiology	No. of cases
Gall stones	19
Hypertriglyceridemia	2
Pancreas divisum	3
Drug induced	4
Autoimmune	1
Hypercalcaemia	2
Traumatic	3
Infections	2
Idiopathic	10
Post ERCP	2
Congenital	2

COMPLICATIONS

Etiology	No. of cases
No of patients	17
Pseudocyst of Pancreas	5
Pancreatic ascites	2
Necrotizing Pancreatitis	4
Pleural effusion	3
Acute Renal Failure	2
Acute respiratory distress syndrome	1

Complications



DISCUSSION

In comparison to other studies performed in PGI Chandigarh, AIIMS Delhi, Coimbatore and an international study done by Maryam Nesvaderani et,al our study found most common cause of pancreatitis as Gallstone induced pancreatitis⁷. But all other studies included alcohol related pancreatitis but in our study it is excluded⁸.

Similar to other studies Idiopathic Pancreatitis is second most common cause in our study also which shows even after advent of latest investigations it is difficult to find cause in each and every patient with Acute Pancreatitis this may be because of non availability of genetic testing and endoscopic ultrasound which are costly investigations⁹.

In our study Drug induced pancreatitis constituted 8 % of cases which is significant in comparison to other studies¹⁰, this is may be because of increased use of ART medication, Steroid usage in our area¹¹.

In our study Pancreas divisum constituted 6 % of cases which is significant in comparison to other studies. This shows increased prevalence in this area in comparison to northern India where studies proformed in AIIMS & PGI are not shown significant number of cases^{12,13}.

In our study we have found significant number of cases of pancreas divisum (6%), Drug induced (8%), hypercholesteremia (4%) which is significantly higher in our study^{14,15}.

In our study post traumatic pancreatitis seen in 6% cases almost double to that of other studies.

	Present study N=50	PGI Chandigarh N=61	AIIMS Delhi N=276	Coimbatore N= 30	Maryam Nesvaderani et al N=932
Gallstone	38	35	44.6	13	40
Alcohol		45	17.7	13	22
Pancreas divisum	6				0.9
Post ERCP	4				2.8
Viral				7	
Post traumatic	6	3.7		3	0.8
Drugs	8				3.6
Hypercholesteremia	4				0.3
Miscellaneous	24		6.9	13	2.6

CONCLUSIONS

1. Gall stone pancreatitis to be most common cause of pancreatitis among non alcoholic pancreatitis.
2. Most of the patients are presented with mild to moderate pancreatitis
3. Various Complications are observed in non alcoholic pancreatitis similar to alcoholic pancreatitis but most of them responded to treatment.
4. Other etiology like drugs & pancreas divisum etc.form significant group

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