



## CLINICAL STUDY ON PSEUDOCYST OF PANCREAS

## General Surgery

<b>V. Chitra</b>	Professor and Chief, Department of General Surgery, Sree Balaji Medical College and Hospital, Chrompet, Chennai-44.
<b>Dr. Suruchi Rubina Harinarain*</b>	First Year Postgraduate, Department of General Surgery, Sree Balaji Medical College and Hospital, Chrompet, Chennai-44. *Corresponding Author
<b>Dr. Shreya Shetty</b>	Final year postgraduate, Department of General Surgery, Sree Balaji Medical College and Hospital, Chrompet, Chennai-44.

## ABSTRACT

Pseudocysts of pancreas can occur as a resulting complication due to acute or chronic pancreatitis. This study was carried out to assess the demographic distribution, related comorbidities (if any), associated personal history, presenting clinical features, association with existing pancreatitis and line of management for pseudocyst in a tertiary care hospital.

Pseudocyst of pancreas is most commonly seen in males in the 3rd decade of life in otherwise seemingly healthy individuals with no history of alcohol consumption or comorbidities. Clinical presentation can be varied, with pain abdomen, specifically the epigastric region being the most common complaint. This is followed by nausea, vomiting and loss of appetite. Two cases presented with breathlessness in addition to pain. In this study, size of cyst was taken as a factor for deciding line of management and all cases were treated conservatively.

## KEYWORDS

Pseudocyst, Pancreas, Epigastric, Pancreatitis.

## INTRODUCTION

Pancreatic pseudocysts can occur as a complication of acute or chronic pancreatitis. 1 Diagnosis is achieved by USG abdomen and CECT of abdomen. 2 Most of them resolve spontaneously with conservative management. However, outcome depends on factors such as size and duration of cyst, with larger cysts being more prone for complications.

## BACKGROUND

The line of management depends on various factors such as size of cyst (> 5 cms), distance of pseudocyst to the gastrointestinal wall (<1 cm), presence of mature capsule (wall thickness >3 mm and <1 cm) and location of maximal bulge of cyst to adjacent wall. According to Warshaw and Rattner, a pseudocyst is less likely to resolve spontaneously if: a) it persists for a duration longer than 6 weeks, b) chronic pancreatitis is reported, c) there is evident pancreatic duct anomaly (except for a communication with the pseudocyst) or d) the pseudocyst is surrounded by a thick wall. In a study of 92 patients with chronic alcoholic pancreatitis, Gouyon and co-workers reported a spontaneous regression rate of 25.7%. However, pseudocysts >4 cm and those localized extrapancreatically were found to represent predictive factors for persistent symptoms and/or complications.

Depending on above factors, management is either drainage which can be endoscopic (transmural or transpapillary) or percutaneous, surgical and conservative.

## METHOD

It is a retrospective study of 11 adult patients admitted in Sree Balaji Medical College and Hospital, Chennai, India from January 2015 till date. After admission, data for the purpose of this study was taken by history including presenting complaints, clinical features and relevant investigation modalities.

## Inclusion Criteria

- Patients diagnosed with pseudocyst of pancreas with USG abdomen or CECT abdomen.
- Patients above the age of 18

## Exclusion Criteria

- Patients less than 17 years of age.
- Patients diagnosed with cystic neoplasms of pancreas.

Details were then consolidated and was analyzed with respect to the objectives of this study.

## RESULTS

Pseudocysts were commonly seen in males and in the 3rd decade of life. The commonest cause was idiopathic, second commonest etiology was alcohol consumption, whereas majority of the cases

neither had any habits nor comorbidities. Most cases presented with epigastric pain. 82% of the cases were associated with Pancreatitis, chronic form being the commonest. All cases were managed conservatively.

## Sex

In our study of 11 patients, 64% were males and 36% were females indicating that the pathology is more common in male population.

## TOTAL NUMBER OF CASES – 11

Males – 7  
Females – 4

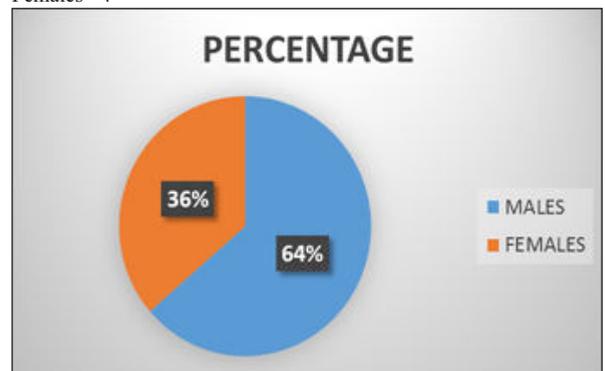


Figure 1: Sex Distribution

## Age

In this study 18% of patients belong to age group between 20-30 and 37% between 31-40 age group and more than 60 age group comprised of 9% of the cases. The mean age of 34±11 years.

Table 1. Age Distribution

AGE	NUMBER
20 – 30	2
31 – 40	4
41 - 50	2
51 - 60	2
> 60	1

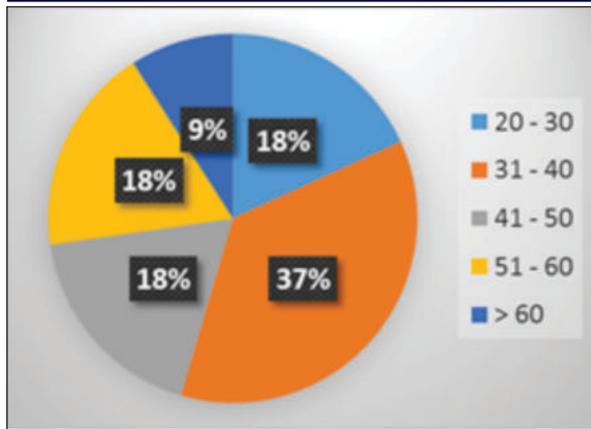


Figure 2. Age Distribution

**Etiology**

The commonest cause was idiopathic, second commonest etiology associated with pseudocyst was alcohol, whereas majority of the cases had no significant personal history.

**Co morbidities**

90% of the patients had no co-morbid conditions. Only one case presented with a comorbidity which was hypertension.

Table 2. Comorbidities Distribution

ASSOCIATED FACTORS	NUMBERS
COMORBIDITY	1
SMOKER	2
TOBACCO CHEWING	1
ALCOHOLIC	4
NO COMORBIDITIES	10
NO HABITS	7

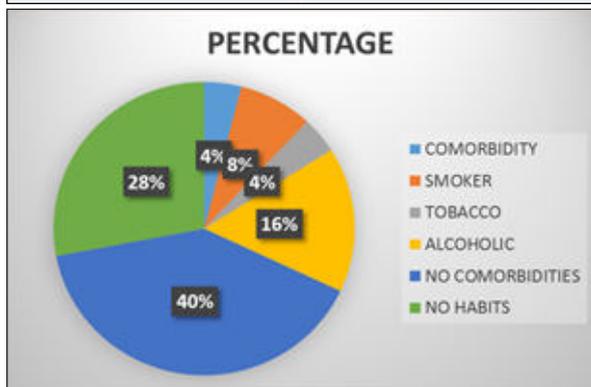


Figure 3. Comorbidities Distribution

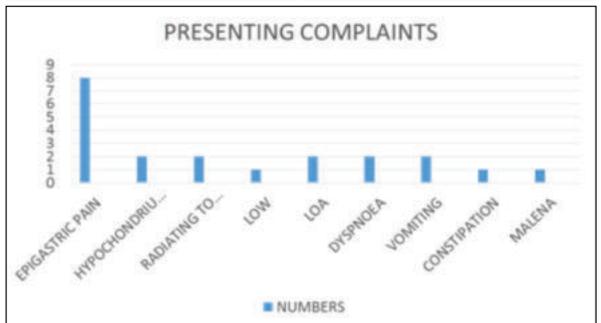
**Clinical Features**

Pseudocysts presented as pain in epigastric region in 72.7% of patients followed by pain in left hypochondrium, pain radiating to back and vomiting in 18.18% of patients respectively. Alteration in bowel habits such as constipation and malena was reported by only 1 case each. Interestingly, 2 cases presented with breathlessness.

Table 3. Presenting Complaints

PRESENTING COMPLAINTS	NUMBERS
EPIGASTRIC PAIN	8
HYPOCHONDIUM PAIN	2
ABDOMINAL PAIN RADIATING TO BACK	2

LOSS OF WEIGHT	1
LOSS OF APPETITE	2
DYSPNOEA	2
VOMITING	2
CONSTIPATION	1
MALENA	1



Graph 1. Presenting complaints

**Association With Pancreatitis And Type**

18.18% of the cases presented only with Pseudocyst of pancreas with no features or past history of Pancreatitis. The remaining cases were further subdivided into type of pancreatitis where chronic type was the commonest followed by acute and acute on chronic at 37%, 25% and 25% respectively. Two cases presented with necrotizing pancreatitis.

Table 4. Number Of Cases Associated

ASSOCIATED WITH PANCREATITIS	NUMBERS
YES	9
NO	2

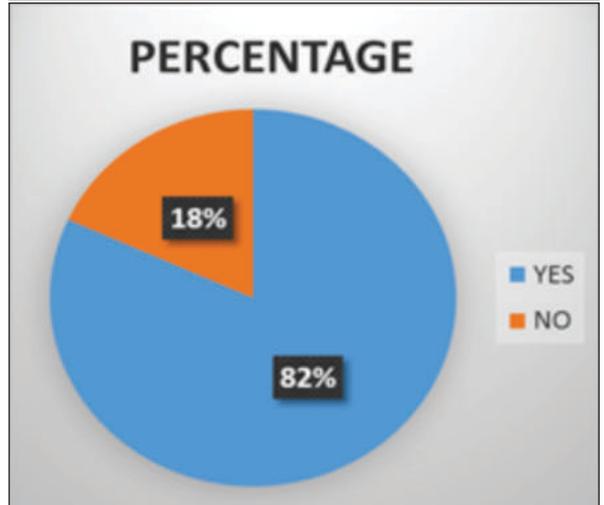


Figure 4. Percentage of cases

Table 5. Type Of Pancreatitis – In

TYPE	NUMBERS
ACUTE	2
CHRONIC	3
ACUTE ON CHRONIC	2
NECROTISING	1
NECROTISING + CHRONIC	1

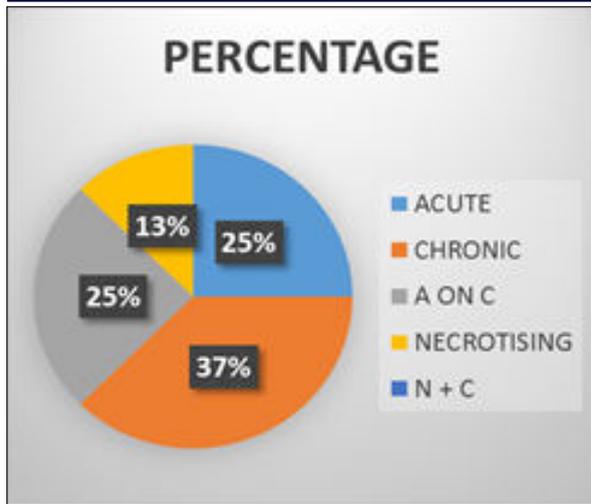


Figure 5. Type Of Pancreatitis - In

**Line Of Management**

SIZE OF CYST	NUMBER OF CASES	MODE OF MANAGEMENT
< 2 cms	8	Conservative
2 – 5 cms	3	Conservative

**DISCUSSION**

In this study, majority belonged to 31-40 years of age accounting for 37% followed equally by other age demographics, more than 60 being the least common age group. Mean age was 34±11 years. Thus, pseudocyst of pancreas is more common in the 3<sup>rd</sup> decade of life.

From the above data, pseudocyst is higher in males accounting for 64% of the cases.

In our study, 68% of patients had no significant history or comorbidities. Per Walt et al 70% of patients had history of consumption of alcohol, making it an important etiology for pseudocyst of pancreas.7 whereas in our study, it was second commonest cause. One case presented with a comorbidity which was hypertension.

In present study 91% patients presented with abdominal pain, in the epigastric region being more common, followed by dyspnea, vomiting, loss of appetite in equal percentages of 18% respectively. One case each presented with altered bowel habits such as constipation and malena.

All cases were treated conservatively owing to the size of the cysts.

**CONCLUSION**

In summary, the findings of the study are as follows; Pseudocysts are more commonly seen in males than females belonging to the age group of 31-40 years followed by other age groups in equal percentages. The least common age bracket being more that 60 years. The commonest cause was idiopathic, second commonest etiology associated with pseudocyst was alcohol, whereas the disease occurs in otherwise healthy individuals with no associated personal history or comorbidities. Pain abdomen followed by vomiting, loss of appetite and dyspnea was the most common clinical feature. Altered bowel habits were less common. Majority of cases presented with or were previously diagnosed with pancreatitis out of which Chronic pancreatitis was the commonest. All cases were managed conservatively based on size of the cysts.

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