

## Clinical Profile of Patients with Pancreatic Pseudocyst

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### Abstract

*Introduction:* Trauma in both forms blunt and penetrating can result in pseudocysts formation. In adults, trauma as an etiological factor is seen in around 15-20% of pseudocysts while in children they are the most common cause of pancreatic pseudocysts seen in around 60%. *Methodology:* 50 cases adult patients with symptomatic pancreatic pseudocyst are included in the study. The selected patients were subjected to a detailed history elicitation followed by thorough evaluation of risk factors and clinical features. *Results:* Following complaints were recorded, pain abdomen in 93.3%, vomiting in 78.3%, abdominal fullness noted in 60% of patients and loss of appetite in 81.7% patients. *Conclusion:* In this study patients undergoing surgery had a 6.7% of infection rate

**Keywords:** Pancreatic Pseudocyst; Clinical Profile; Pain Abdomen.

### Introduction

Pancreatic pseudocysts occur in 5-10% patients with acute pancreatitis. With improved imaging technique, the prevalence of asymptomatic pseudocysts has been improved. Pseudocysts are believed to occur in 10-20% patients with acute pancreatitis and in 20-40% patients with chronic pancreatitis [1].

Pseudocysts occur more commonly in males than in females, a finding that perhaps reflects the frequent occurrence of these patients with alcoholic pancreatitis. Alcohol appears to be the cause of 65% of pancreatitis related pseudocysts and gall stones for the origin of the other 15% of the cases [2,3].

Trauma in both forms blunt and penetrating can result in pseudocysts formation. In adults, trauma as an etiological factor is seen in around 15-20% of pseudocysts while in children they are the most common cause of pancreatic pseudocysts seen in around 60%.

Bleeding is the most feared complication and is caused by the erosion of the pseudocyst into a vessel. Consider the possibility of bleeding in any patient who has a sudden increase in abdominal pain coupled with a drop in hematocrit level or a change in vital signs. Therapy is emergent surgery or angiography with embolization of the bleeding vessel. Do not perform a percutaneous or endoscopic drainage procedure under any circumstances in patients with suspected bleeding into a pseudocyst.

Consider the possibility of infection of the pseudocyst in patients who develop fever or an elevated WBC count. Treat infection with antibiotics and urgent drainage. GI obstruction, manifesting as nausea and vomiting, is an indication for drainage. The pseudocyst can also rupture. A controlled rupture into an enteric organ occasionally causes GI bleeding. On rare occasions, a profound rupture into the peritoneal cavity causes peritonitis and death [4].

### Methodology

This is a prospective study conducted in the

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department of General surgery and the patients admitted in hospital wards with symptomatic pancreatic cyst have been taken up for the study.

The selected patients were subjected to a detailed history elicitation followed by thorough evaluation of risk factors and clinical features. They were then subjected with baseline investigations (Biochemistry, Haemogram, and Chest Skiagram). This was then followed up by specific investigations like serum amylase, liver function tests, USG - Abdomen and CT - Abdomen. Each patient was individualized and treated accordingly. The outcomes were documented using proforma.

#### *Inclusion Criteria*

Pseudocysts with greater than or equal to 6 weeks duration were involved in the study.

#### *Exclusion Criteria*

Children and traumatic pseudocysts.

#### *Sample Size*

50 cases adult patients with symptomatic

pancreatic pseudocyst are included in the study.

## **Results**

In my study of total 60 cases 36.7% are in age group of 30 to 39 years and 46.7% in 40-49 year age group and 16.6% in 50-59 year age group.

In my study of 60 cases 55(91.6%) are males and 5(8.4%) are females.

In my study agriculture is occupation in 5%(3), coolie in 48.3%(29), drivers 23.4%(14), and hamali 23.3%(14) among others.

In my study 56(93.3%) are alcoholics and 4(6.7%) patients were nonalcoholics.

In my study following complaints were recorded, pain abdomen in 93.3%, vomiting in 78.3%, abdominal fullness noted in 60% of patients and loss of appetite in 81.7% patients.

In my study abdominal tenderness is noted in 96.7%(58) patients.

In this study patients undergoing surgery had a 6.7% of infection rate (wound site infection) which was managed conservatively.

**Table 1:** Age wise distribution of study subjects

Age group	Frequency	Percentage
30 - 39 years	22	36.7%
40 - 49 years	28	46.7%
50 - 59 years	10	16.6%
Total	60	100%

**Table 2:** Sex wise distribution of study subjects

Sex	Frequency	Percentage
Male	55	91.6%
Female	05	08.4%
Total	60	100%

**Table 3:** Occupation of study subjects

Occupation	Frequency	Percentage
Agriculture	03	05.0%
Coolie	29	48.3%
Driver	14	23.4%
Hamali	14	23.3%
Total	60	100%

**Table 4:** Distribution of study subjects based on alcohol history

Alcohol	Frequency	Percentage
Yes	56	93.3%
No	04	06.7%
Total	60	100%

**Table 5:** Distribution of study subjects based on complaints

Complaints	Frequency	Percentage
Pain abdomen	56	93.3%
Vomiting	47	78.3%
Abdominal fullness	36	60.0%
Loss of appetite	49	81.7%

**Table 6:** Distribution of study subjects based on tenderness

Tenderness	Frequency	Percentage
Present	58	96.7%
Absent	02	03.3%
Total	60	100%

**Table 7:** Comparison of investigations

Investigation parameters	Surgery	USG aspiration	P value*
Hb	12.2 +/- 1.3	11.9 +/- 1.1	0.42
TC	8928.0 +/- 424.1	7257.3 +/- 168.8	0.05
RBS	85.5 +/- 13.5	89.5 +/- 13.8	0.26
B.Urea	34.4 +/- 9.3	36.9 +/- 5.9	0.23
S.creatinine	0.910 +/- 0.34	0.910 +/- 0.32	1.00
S.amylase	299.7 +/- 11.4	302.4 +/- 10.6	0.92
Fluid amylase	919.8 +/- 166.6	888.7 +/- 136.2	0.43
Volume	878.6 +/- 36.4	861.3 +/- 17.4	0.81
Wall thickness	6.80 +/- 0.4	3.89 +/- 0.6	0.001

\*Independent 't' test

**Table 8:** Post operative infection

Infection	Frequency	Percentage
Yes	02	6.7
No	28	93.3
Total	30	100%

## Discussion

A comparative study between ultrasound guided aspiration versus conventional surgery is done between January 2012 to June 2013, study included 60 patients, patients divided into two groups, one for ultrasound guided aspiration(30 patients) and other group(30 patients) for surgery, patients selected for ultrasound guided aspiration fulfilled inclusion criteria as mentioned above. Surgical procedure considered only in cysts with wall thickness more than 6mm. The following results are obtained:

In my study males(91.6%) predominated over females. Of 60 patients, 56 were alcoholic (93.3%) and 4 were not. In this study 93.3% patients had pain abdomen , 78.3% had vomiting and 60% had abdominal fullness as complaints and 81.7% had loss of appetite.

Abdominal Tenderness was present in 96.7% of patients(58 patients).

A similar study was conducted in Louisiana University Medical Center, New Orleans by name "the efficacy of definitive percutaneous versus

surgical drainage of pancreatic pseudocysts: a prospective study of 85 patients" By Lang EK, Paolini RM, Pottmeyer A [5].

In this study percutaneous aspiration has cured 11 of 14 infected pseudocysts and palliated two, which were subsequently cured by surgery; one was palliated but patient was lost to follow up. Surgical drainage cured six of 12 infected pseudocysts and palliated the other six, of which four were cured by further surgery and the other two by secondary percutaneous drainage. Nine of 12 noninfected pseudocysts were cured by percutaneous aspiration, and two were palliated and later cured. In one patient, disease progressed, and he was ultimately lost to follow-up.

Thirteen of 14 noninfected pseudocysts were cured by surgical drainage. The other patient died of pulmonary embolus. In patients treated by percutaneous techniques, there were four major complications.

Our study established distinct advantages of percutaneous drainage under computerized tomographic and ultrasonic guidance: (1) the

procedures can be carried out under ultrasonic guidance in an intensive care unit on critically ill patients, (2) the technique proved highly effective for initial palliation, with defervescence and stabilization occurring in most critically ill patients within 48 hours, (3) findings from fine needle aspiration provided valuable information as to microorganisms and antibiotic sensitivities and differed in 29 of 85 patients from those of concomitant blood cultures, and (4) definitive eradication of the process (surgical ablation of residual necrotic material) can be elected after the patient's clinical condition stabilizes.

### Conclusion

Pain abdomen and vomiting were the most common presenting complaints

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