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Original research article

Clinical profile of patients with pseudocyst of pancreas

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Abstract

Acute pancreatitis is usually characterized by the acute onset of symptoms in a previously healthy individual and the disappearance of those symptoms as the attack resolves, in contrast, patient with chronic pancreatitis may had prior attacks or symptoms of either exocrine or endocrine insufficiency before the current attack, and their symptoms may persist even after resolution of the current attack. The clinical study of pseuopancreatic cyst of 38 cases was conducted by selecting cases over period of one and half years. The Institution where this study was conducted necessary investigations were done which helped in diagnosing and treating patients. These include Ultrasound Abdomen Scan, Computed Tomography which was immensely helpful in arriving at the diagnosis of pseudopancreatic cyst. The commonest symptom was upper abdominal pain which was present in all patients (100%), followed by nausea / vomiting in 52.63% of patients, anorexia in 31.57% of patients, fever in 26.31% patients and abdominal distention in 23.68% of patients.

Keywords: Pseudocyst of pancreas, abdominal pain, abdominal distention

Introduction

Pancreas is perhaps the most unforgiving organ in the human body, leading most surgeons to avoid even palpating it unless necessary. Situated deep in the center of the abdomen, in the past it was a mysterious organ. The pancreas is surrounded by numerous important structures and major blood vessels. Therefore seemingly minor trauma to the pancreas can result in the release of pancreatic enzymes and cause life-threatening pancreatitis. Surgeons that choose to undertake surgery on the pancreas require a thorough knowledge of its anatomy [1].

The rapid development of non-invasive imaging techniques has led to a much better understanding of pancreatic disease and pathology.

Pancreatitis can be classified as either acute or chronic, based on its clinical characteristics, pathological changes and natural history [2].

Acute pancreatitis is usually characterized by the acute onset of symptoms in a previously healthy individual and the disappearance of those symptoms as the attack resolves, in contrast, patient with chronic pancreatitis may had prior attacks or symptoms of either exocrine or endocrine insufficiency before the current attack, and their symptoms may persist even after resolution of the current attack [3].

Complications of pancreatitis include peripancreatic effusions, chronic pancreatitis, acute pseudocyst and pancreatic necrosis.

Pseudocyst of pancreas are of two types, acute and chronic. The ability to study these lesions noninvasively at multiple points in times has allowed the distinction between acute and chronic pseudocyst two seemingly similar entities with quite different natural history and treatment requirements [4].

Methodology

The clinical study of pseuopancreatic cyst of 38 cases was conducted by selecting cases over period of one and half years.

The Institution where this study was conducted necessary investigations were done which helped in diagnosing and treating patients. These include Ultrasound Abdomen Scan, Computed Tomography which was immensely helpful in arriving at the diagnosis of pseudopancreatic cyst.

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Inclusion criteria

1. Patients diagnosed as pseudopancreatic cyst with the help of diagnostic procedures like USG abdomen or CT abdomen.
2. Admitted patients of both sexes and age above 15 years.

Exclusion criteria

1. All the true cysts of Pancreas.
2. Neoplastic cystic swellings of Pancreas.
3. Hydatid Cysts of Pancreas.
4. Congenital Cysts of Pancreas.

This study has included both sex and patients above 15 years of age. Patients with diagnosis of pancreatitis were monitored. If during the course of their illness, if they developed features suggestive of pancreatic pseudocyst which is confirmed using USG abdomen or patients who are incidentally found as having pseudocyst pancreas are included in this study. Those patients only with chronic pancreatitis, peripancreatic fluid collection without evidence of encapsulation on USG, Hydatid cyst of pancreas, true cyst of Pancreas, Neoplastic or congenital cystic lesions of Pancreas were excluded from the study.
The diagnosis of pseudo-pancreatic cyst was made in all patients by USG though in addition CT scan performed on most of the patients where diagnosis was uncertain or to define the extent and to diagnose any complications. Serum values of Amylase and Lipase were measured.
Demographic data was collected including the age and sex of the patient, etiology of pseudo-pancreatic cyst formation, signs and symptoms at the time of presentation, associated pancreatic condition at the time of presentation, simple/multiple cysts, different modalities of diagnosis, and treatment. Every patient with a pseudocyst had serial USG studied to monitor the evaluation of the cystic collection.
All patients with acute pseudocyst were managed conservatively by keeping nil per oral, IV fluids, analgesics and antibiotics(sos) as long as they had pain abdomen, vomiting or ileus. One patient's pain was managed using epidural anesthesia. They were then followed up to look for cyst size and complications, follow up continued till the cyst wall matured. All mature cysts were treated surgically.
Data related to conservative management & its results, surgical procedures & results, duration of hospital stay, complications if any, progress of the pseudocyst follow up were carefully recorded.

Results

Table 1: Age Distribution

Age in years	No. of patients	Percentage (%)
15-20	2	5.26
21-30	12	31.57
31-40	11	28.94
41-50	10	26.31
>=51	3	7.89

In our study of 38 patients, age of patients from 18-55 years, pseudo-pancreatic cyst was common in the age group of 21-50 years (86.84%), with mean age group 35.78 years. This is probably due to alcohol use which is common in this age group.

Table 2: Sex Incidence

Sex	No. of Patients	Percentage
Male	31	81.42
Female	7	18.57

In our study of 38 patients, there were 31(81.42%) male patients, 7(18.57%) female patients, indicating that the disease is more common in male, with a ratio of almost equal to 4:1::Male: Female. This again was due to higher alcohol intake in males.

Table 3: Symptoms

Symptoms	No. of patients	Percentage
Pain Abdomen	38	100
Nausea/Vomitting	20	52.63
Abdominal distention	9	23.68
Fever	10	26.31
Wieght loss	4	10.52
Anorexia	12	31.57
Jaundice	4	10.52

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The commonest symptom was upper abdominal pain which was present in all patients (100%), followed by nausea/vomiting in 52.63% of patients, anorexia in 31.57% of patients, fever in 26.31% patients and abdominal distention in 23.68% of patients.

Table 4: Signs

Signs	No. of Patients	Percentage
Tenderness	29	76.31
Mass	20	52.63
Guarding/Rigidity	11	28.94
Ascites	10	26.31
Ileus	1	2.63

The commonest sign was upper abdominal tenderness which was present in 76.31% of patients, followed by mass per abdomen in 52.63% patients and guarding/rigidity in 28.94% of patients.

Table 5: Number of Cysts

Number of Cysts	No. of Patients	Percentage
Single	25	65.78
Multiple	13	34.21

Single pseudocyst of pancreas was more common in our study which comprises of 65.78% compared to multiple pseudocyst pancreas (34.21%).

Discussion

Out of 38 patients, 31 were male and 7 were female patients. This is compared with the study of V. Usatoff, *et al*., (2000).

Table 6: Comparison of Sex

Sex	V. Usatoff, *et al*., [5]	Our study
Male	75	81.42
Female	25	18.57

The incidence of pseudocyst is predominant in males because of consumption of alcohol compared to females.

In our study common age group was 21-50 years (86.84%) this is compared with a study of V. Ustoff *et al*., (2000) and RW Parks (2000).

Table 7: Comparison of age

	RW Parks *et al*., [6]	V. Ustoff *et al*., [5]	Andrew L *et al*., [7]	Our study
Mean age group	50.4	44	46.7	35.78

This result was probably due to alcohol consumption was more in this age group.

The most common symptom and signs of pseudopancreatic cyst patient are pain abdomen, vomiting, mass per abdomen and upper abdominal tenderness.

Table 8: Comparison of clinical features

	Enver zerem *et al*., [8]	Andrew L *et al*., [7]	Our study
Abdominal pain	89.1	76.19	100
Fever	35.2		26.31
Nausea /vomiting	21.9	16.66	52.63
Abdominal tenderness	68.8	47.61	76.31
Jaundice	5.3	9.52	10.52
Wt loss		4.76	10.52
Mass per abdomen		33.33	52.63

The most common symptom in our study was pain abdomen and most common sign was abdominal tenderness.

Conclusion

- Male patients predominate with incidence of 81.42%.
- Maximum incidence is in the age group of 21-50 years, with mean age of 35.78 years.

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- Abdominal pain and tenderness are the most common presenting symptom and signs.

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