Original Research Paper

Volume - 10 | Issue - 12 | December - 2020 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Medical Science

CLINICAL STUDY AND MANAGEMENT OF PSEUDOPANCREATIC CYST

P. Ramakrishna

N. Siva Durgesh* Professor, Department of Anatomy, MIMS, Nellimarla, Vizianagaram. *Corresponding Author

ABSTRACT **INTRODUCTION:** The pseudocysts present clinically as epigastric pain, abdominal masses to jaundice. Radiology helps in the diagnosis of the pseudocysts with the help of USG, CT scan, MRI, etc. These investigations govern the therapeutic procedures to be carried out. **AIMS AND OBJECTIVES:** To understand the epidemiology of pancreatic pseudocysts. To analyze the various treatment modalities that can be utilized in the management of the pancreatic pseudocysts. To compare USG guided per-cutaneous aspiration with the other treatment options available in terms of patient and physician factors. **MATERIALS AND METHODS:** Data was collected from patients who came to Konaseema Institute of Medical Sciences & Research Institute for treatment. Patients diagnosed as pseudopancreatic cyst with help of diagnostic procedure like USG abdomen, Barium meal, if required CT scan Abdomen and admitted patients of both sex and all age groups were included in the study. **RESULTS:** Commonest treatment was Internal drainage in 50% of the patients followed by conservative management in 36.66% of patients, external catheter drainage was done in 13.33% of the patients. Immediate postoperative pain was present in 16.66% of patients and wound infection in 13.3%. **CONCLUSION:** Acute Pancreatic pseudocysts were treated conservatively, infected cysts and ruptured cyst required external drainage.

KEYWORDS : Pseudopancreatic, Cyst

INTRODUCTION

Pancreatic pseudocyst can occur as a complication of acute or chronic pancreatitis[1]. Pancreatic pseudocysts occur in 5% to 15% of patients who have peripancreatic fluid collections after AP[2]. According to the Atlanta classification, PPs are considered as fluid collections in the peripancreatic tissue, which occasionally can be found partly or totally inside the pancreatic parenchyma[3]. Imaging of PP shows fluid surrounded by a well-defined wall containing no solid material.

There is also a classification based entirely on pancreatic duct anatomy proposed by Nealon et al[4]. This system defines the categories of ductal abnormalities seen in patients with pseudocyst and relates the authors' experience with different types of treatment.

The classification of pseudocysts proposed by D' Egidio et al[5]. into account all the aspects mentioned above. They identified three distinct types of pseudocysts: Type I or acute "post-necrotic" pseudocysts that occur after an episode of acute pancreatitis and are associated with normal duct anatomy and rarely communicate with the pancreatic duct,

Type II, or post-necrotic pseudocysts which occur after an episode of acute or chronic pancreatitis (the pancreatic duct is diseased but not strictured, and there is often a duct-pseudocyst communication).

Type III, defined as "retention" pseudocysts, which occur in chronic pancreatitis and are uniformly associated with duct stricture and pseudocyst-duct communication.

The pseudocysts present clinically as epigastric pain, abdominal masses to jaundice. The laboratory findings are not much of use in the diagnosis of these pseudocysts. It is radiology which helps in the diagnosis of the pseudocysts with the help of USG, CT scan, MRI, etc. These investigations govern the therapeutic procedures to be carried out. The treatment team for pseudocysts includes radiologists, endoscopists and surgeons. The radiologists by way of guided per-cutaneous techniques for aspiration/drainage to the therapeutic embolization of bleeding aneurysms and the endoscopists by way of various endoscopic drainage procedures contribute to the team.

The surgeon plays an important and definitive role in the therapeutic team with an array of techniques both open and laparoscopically. It is ultimately to provide adequate, dependent drainage of pseudocyst contents before they present with any complications. This study is carried out to analyze the various etiological factors that lead on to the formation of pancreatic pseudocysts. The various diagnostic and therapeutic procedures available for intervention are also studied and their indications and contra-indications with their advantages compared in this series.

METHODOLOGY

Data was collected from patients who came to Konaseema Institute of Medical Sciences & Research Institute for treatment. The clinical study of pseudopancreatic cyst of 30 cases was conducted by selecting cases from Konaseema Institute of Medical Sciences & Research Institute during the period of December 2016 to December 2018 over period of two years.

This institution where this study was conducted is well equipped to carry out all necessary investigations which helped in diagnosing and treating the cases which include barium meal, ultrasound scan and computer tomography which was immensely helpful in arriving at the diagnosis of pseudopancreatic cyst.

Patients diagnosed as pseudopancreatic cyst with help of diagnostic procedure like USG abdomen, Barium meal, if required CT scan Abdomen and admitted patients of both sex and all age groups were included in the study.

Patients with all the true cyst of pancreas, neoplastic cystic swelling of pancreas, hydatid cyst of pancreas and congenital cysts of pancreas excluded from the study.

The diagnosis of PPC was made in all patients by USG though in addition CT scan performed on some patients where the diagnosis was doubtful or to define the extent and to diagnose any complications. Barium meal was done in some of the patients to know the compression effect on the adjacent organs mainly stomach. Demographic data was collected including the age, sex of the patient and etiology of pancreatitis. Each patient with a pseudocyst had serial USG studies to monitor the evolution of the cystic collection.

All the patients with acute pseudocyst were managed conservatively by withholding oral intake, giving IV fluids, antibiotics and analgesics as long as they had pain abdomen, vomiting or ileus. They were further followed up if the cyst did not regress follow up continued till the wall of the cyst is matured. All mature cysts were treated surgically. The data like conservative management and its results, surgical procedure done and their results, complications if any, progress of the pseudocyst on fallow up were carefully recorded.

RESULTS

In our study of 30 patients the age of patients from 1 to 70 years, 26(86.6%) male and 4(13.3%) female patients. Pseudopancreatic cyst was common in age group 31-40 (36%) with mean of 35 years. This is probably due to alcohol use which is common in this age group. Commonest symptom was upper abdominal pain which was present in all patients (100%), followed by nausea/vomiting and abdominal

distension (fullness) which was present in 80% of the patients.

Commonest sign was upper abdominal tenderness which was present in all the patients (100%), followed by mass per abdomen which was present in 73.3% of the patients. Most common risk factor was alcohol which was present in 70% of the patients, followed by idiopathic in 13.3%, blunt trauma was present in 10% and Biliary disease in two patients (6.6%). 20% of patients were infected followed by ascites and obstruction in 3.33% patients in each group and there were no case of rupture & hemorrhage [Figure 1].

Ultrasound was the basic investigation done in all patients (100%). Barium meal was done in 26.6% of the patients with complaints suggestive of the adjacent organ compression mainly stomach. CT-scan was done in 20% of the patient where the extent and complication of the cyst could not be made out by the ultrasound. Serum amylase was done in 26.6% of the patients of acute pancreatitis and the results were positive in all these patients and cyst fluid amylase and CEA were done and 36.6% of the patient had increased amylase levels and none have raised CEA levels [Figure 2] .

Lesser sac is the most common site for pseudocyst of pancreas in 46.6% of the subjects. Other common positions are head, body and tail [Figure 3]. The longest diameter of the pseudocyst was taken into account. Commonest treatment was Internal drainage in 50% of the patients followed by conservative management in 36.66% of patients, external catheter drainage was done in 13.33% of the patients [Figure 4]. Immediate postoperative pain was present in 16.66% of patients and wound infection in 13.3%.

DISCUSSION

Total 30 cases of pseudopancreatic cyst have been studied. Out of 30 cases 1 is of pediatric age group and 29 adult groups. Out of 30, 26 patients were male and 4 patients were female. This is compared with the study of V.Usatoff, et al[6] (2000). The incidence of pseudopancreatic cyst more in males; this is due to the fact that alcohol consumption is common in males when compared to females.

In our study the common age group was 31-40 years (36%) cases, this is compared with a study group of V.Usatoff, et al[6] (2000). These results were probably due to more consumption of alcohol in this age group. There were 1 patients under pediatric age group the cause was unknown. There were 3 patients over the age of 51 in our study.

The commonest symptom by which patient presented was with pain abdomen and mass per abdomen. These were compared with the study group of V.Usatoff, et al[6] (2000).

The commonest complication was infection followed by ascitis. This is compared with V.Ustoff et al[6] (2000).

In our study of 30 patients the commonest complication was persistent pain abdomen followed by wound infection in immediate postoperative period, this is compared with the study group of V.Usatoff, et al[6](2000).

CONCLUSION

USG abdomen was the most useful investigation for diagnosis and follow-up. Barium meal and CT-scan was required in selected cases. Acute Pancreatic pseudocysts were treated conservatively, infected cysts and ruptured cyst required external drainage. Percutaneous aspiration resulted in recurrence in our cases. Anastomoses of the mature cyst to the nearby bowels, either cystogastrostomy or cystojejunostomy was done in the majority of cases with good results.

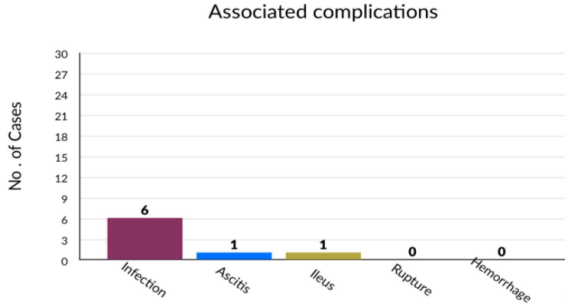

Figure 1: Associated complications

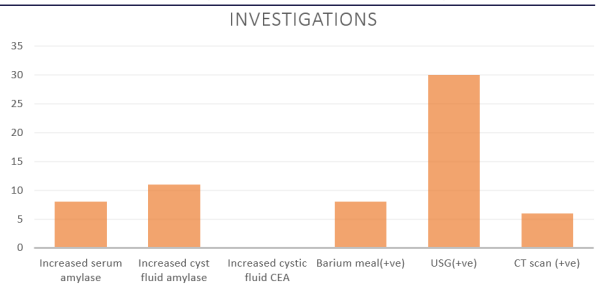

Figure 2: Investigations

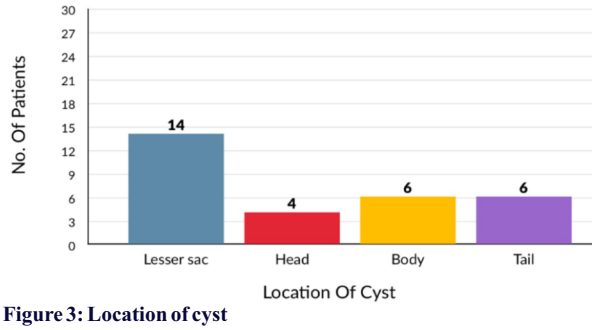

Figure 3: Location of cyst

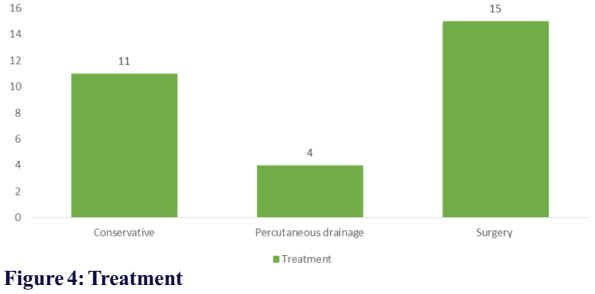

Figure 4: Treatment

REFERENCES

1. International Surgery Journal Babu GR et al. Int Surg J. 2017 Apr;4(4):1426-1430.
2. Vikas Dudeja et al. Exocrine pancreas, Sabiston Textbook of Surgery 20th Ed. 2017: 1530-1531.
3. Banks PA, Bollen TL, Dervenis C, et al. Classification of acute pancreatitis--2012: revision of the Atlanta classification and definitions by international consensus. Gut 2013; 62:102-11.
4. Nealon WH, Walser E. Main pancreatic ductal anatomy can direct choice of modality for treating pancreatic pseudocysts (surgery versus percutaneous drainage) Ann Surg. 2002;235:751–758.
5. Sileikis Audrius, Beisa Augustas, Kvietkauskas Mindaugas, Juozas Stanaitis, Aušra Aleknaitė, Kęstutis Strupas. Minimally Invasive Approach in the management of Pancreatic Pseudocysts. J Pancreas. 2016;17(2):222- 2.
6. Usatoff V, Brancatisano R, and Williams RCN. Operative treatment of pseudocysts in patients with chronic pancreatitis. Br J Surg 2000; 87:1494- 1499.