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Research Article

**EXTRA-PANCREATIC MANIFESTATION AND
COMPLICATIONS OF ACUTE PANCREATITIS**¹ Dr. Tufail Ahmed Baloch, ² Dr. Shamsuddin Junejo, ³ Dr. Ashfaque Ahmed,⁴ Dr. Hamid Nawaz Ali Memon, ⁵ Dr. Ali Raza Shaikh and ^{*6} Dr. Samar Raza¹ Consultant Surgeon & Medical Superintendent Peoples Medical College Hospital² Minimal Invasive Surgical Centre, LUMHS Jamshoro³ Jijal Maa Hospital Qasimabad Hyderabad⁴ Zulekha Hospital Dubai United Arab Emirates^{5,6} Liaquat University Hospital Hyderabad / Jamshoro**Abstract:****Objective:** To determine the extra-pancreatic manifestation and complications of acute pancreatitis.**Patients and Methods:** The six months observation study was conducted at tertiary care hospital and comprised fifty cases of clinical suspicion/diagnosis of acute pancreatitis, altered biochemical parameters (serum amylase, serum lipase) in favor of acute pancreatitis, Ultrasonography suggestive of acute pancreatitis and known case of chronic pancreatitis with features of acute symptoms are taken up for computed tomography study and evaluated. The patient was asked to be in overnight nil oral status and after obtaining renal function tests the contrast-enhanced CT was done. Clinical details, laboratory, ultrasonography and computed tomography findings of the case will be recorded as per the proforma. The extrapancreatic manifestation and complications of acute pancreatitis were explored. The frequency / percentages (%) and means \pm SD computed for study variables.**Results:** During six months study period total fifty patients of acute pancreatitis were explored for extrapancreatic manifestations and complications. The frequency for male and female population was 35 (70%) and 15 (30%) with mean \pm SD for age of male and female individuals was 56.82 \pm 8.65 and 53.82 \pm 6.32 respectively. The extrapancreatic manifestation includes none 20 (40%), left pleural effusion 06 (12%), right pleural effusion 03 (6.0%), bilateral pleural effusion 07 (14%), ascites 12 (24%), splenic vein thrombosis 01 (2.0%), portal vein thrombosis 01 (2.0%) while the complication includes pseudocyst 12 (24%) and infected necrosis 04 (8.0%).**Conclusion:** The existence of extra pancreatic manifestations and local complications associated with increased the mortality.**Keywords:** Acute pancreatitis, Extra-pancreatic manifestation and Complications.**Corresponding author:*****Dr. Samar Raza,**

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INTRODUCTION:

Pancreas is also known for its exocrine and endocrine functions and was described first by Herophilus, discovered the pancreatic duct in 1642 by Wirsung, as a secretory gland was investigated by Graaf in 1671, establish the pancreatitis as a disease in 1889 by R. Fitz and Whipple performed the first pancreaticoduodenectomy in 1935 [1-3]. Acute pancreatitis is a disease with high rate of morbidity and mortality and is known to run an unpredictable course [4]. It has a broad spectrum of findings that varies in severity from mild interstitial or edematous pancreas to severe forms with significant local and systemic complications. Severe pancreatitis is characterized by a protracted clinical course, multiorgan failure, and pancreatic necrosis [5]. Treatment of patients with acute pancreatitis is based on the initial assessment of disease severity. Individual laboratory indexes (markers of pancreatic injury, markers of inflammatory response [6]. Numeric grading systems like RANSON and APACHE II are commonly used today as indicators of disease severity [7]. Computed tomography is the gold standard technique not only for its global picture of the pathology and complications but also for the non-invasive method of evaluating the morphology of pancreas and peripancreatic regions in an acute situation [8]. Contrast material enhanced computed tomography helps in early diagnosis and staging of severity of acute pancreatitis and its complications which helps in prediction of prognosis of the disease. Therefore this study was conducted to explore the extra-manifestations and complications of acute pancreatitis at tertiary care hospital.

PATIENTS AND METHODS:

The six months observation study was conducted at tertiary care hospital and comprised fifty cases of clinical suspicion/diagnosis of acute pancreatitis, altered biochemical parameters (serum amylase, serum lipase) in favor of acute pancreatitis, Ultrasonography suggestive of acute pancreatitis and known case of chronic pancreatitis with features of acute symptoms are taken up for computed tomography study and evaluated while the exclusion criteria were congenital pancreatic lesion, pancreatic carcinoma and metastasis and pancreatic trauma. The patient was asked to be in overnight nil oral status and after obtaining renal function tests the contrast-enhanced CT was done. Clinical details, laboratory, ultrasonography and computed tomography findings of the case will be recorded as per the proforma. The extrapancreatic manifestation and complications of acute pancreatitis were explored while the data was analyzed in SPSS. The frequency and percentages (%) was calculated to manipulate the qualitative and quantities variables.

RESULTS:

During six months study period total fifty patients of acute pancreatitis were explored for extrapancreatic manifestations and complications. The frequency for male and female population was 35 (70%) and 15 (30%) with mean \pm SD for age of male and female individuals was 56.82 ± 8.65 and 53.82 ± 6.32 respectively. The demographical and clinical profile of study population is presented in Table 1

TABLE 1: THE DEMOGRAPHICAL AND CLINICAL PROFILE OF STUDY POPULATION

Parameter	Frequency (N=50)	Percentage (%)
AGE (yrs)		
20-29	08	16
30-39	12	24
40-49	14	28
50+	16	32
GENDER		
Male	35	70
Female	15	30
EXTRAPANCREATIC COMPLICATIONS		
None	20	40
Left pleural effusion	06	12
Right pleural effusion	03	6.0
Bilateral pleural effusion	07	14
Ascites	12	24
Splenic vein thrombosis	01	2.0
Portal vein thrombosis	01	2.0
COMPLICATION		
Pseudocyst	12	24
Infected necrosis	04	8.0

DISCUSSION:

Many studies have been published on acute pancreatitis, but few if any have focused on extra pancreatic manifestations in province Sindh population. As most of our patients belong to rural population, thus we explored the frequency of extra pancreatic manifestations and complication in patients with acute pancreatitis. The extra-pancreatic complications were seen in 30 (60%) patients in our study. Ascites was seen in 12 patients (24%), bilateral pleural effusion in 7 patients (14.6%), left pleural effusion alone in 6 patients (12%), right pleural effusion alone in 3 patients (6%), splenic vein thrombosis in 1 patients (2% and portal vein thrombosis in 1 patient (2%). According to Chishty et al [9] conducted a study in 40 patients of which extra-pancreatic complication was seen in 89%.

Pseudocyst was observed in 12 patients (24 %) in our study. Pseudocyst formation occurred in 50% of patients in a study conducted by Gonzale P, et al [10]. Infected necrosis was detected in 4 patients (8%). The total percentage of patients developing local complications in the study was 32%. There was evidence of development of local complications in patients with mild pancreatitis while 9% mortality due to pancreatitis has been observed in our study. In the study by Bollen et al [11] mortality was seen in 6% of patients and in 1.5 % patients in the study by Mortelet K, et al [12].

CONCLUSION:

The mortality was high in our patient population compared to literature due to acute pancreatitis. The existence of extra pancreatic manifestations and local

complications associated with increased the mortality.

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