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Original Article

Controversies in the management of acute pancreatitis

Singh DR[1], Mehta A[2], Dangol UMS[3]
[1]Lecturer, [2]Medical Officer, [3]Lecturer, Dept. of Surgery, Kathmandu Medical College

Abstract:
Introduction: Acute pancreatitis accounts for three to five percent of admission to hospital for abdomen pain. Though most are of mild form, the severer form takes a toll of some ten percent.
Aims and objectives: This study aims to make a retrospective analysis of some fifty four admissions for acute pancreatitis admitted to Kathmandu Medical College Teaching Hospital in the past twenty four months. It also aims to highlight some of the controversies that have come up as to its management.
Results: Among the 54 admissions for acute pancreatitis, there were thirty nine patients. Sixteen (41%) of them were female and twenty three (51%) male. Their ages ranged from twenty one to ninety years, with an average of forty one years. Surprisingly no patients were between sixty to eighty years bracket. Thirteen (33%) of the patients had gall stones in ultrasound. Two (5%) of the patients were suffering from mumps and Eleven (28%) no causal factors were found. While thirteen (33%) patients suffered from alcoholic pancreatitis. All of them were male. Of the alcoholic group, five (38%) had recurrent attacks. Five (38%) from the biliary and two (18%) from the idiopathic group had recurrent attacks. Four patients were operated on emergency basis. Three with the diagnosis of peritonitis and another eighty four year old lady with features of associated cholangitis were found to have acute pancreatitis at operation. One of them underwent peritoneal toileting; two had cholecystectomy and peritoneal toileting while the eighty four year old lady underwent cholecystectomy, common bile duct exploration and peritoneal toileting. All fared well post-operatively.

Keywords: acute pancreatitis, microliths, buscopan, idiopathic pancreatitis

Acute pancreatitis accounts for three to five percent of admission to a hospital for abdominal pain. It is a major cause of morbidity and mortality[1]. It is said that there are two surgical pitfalls in its management:

To operate too early and to do too much
To operate too late and to do too little[2]

Though *too early*, *too much*, *too late* and *too little* is a matter of some debate[3], the standard teaching has been that acute pancreatitis is basically managed medically. Surgical intervention is only required:

1. When the diagnosis is in doubt
2. When the patients fail to improve with the medical management or when there is development of local complications.
3. For removal of the cause for pancreatitis e.g. cholecystectomy for biliary pancreatitis after the acute episode subsides[2].

Patients and Methods

Retrospective study of all the patients admitted as cases of acute pancreatitis in Kathmandu Medical College Teaching Hospital within the past two years (2059-2061 B.S.) were studied. A total of thirty nine patients with acute pancreatitis were admitted to Kathmandu Medical College Teaching Hospital during this period. Of these thirty nine patients, fifteen were readmitted which accounts to fifty four admissions. The diagnosis of pancreatitis was made clinically with the amylase level raised four times of the normal value. Patients were not grouped according to the severity of pancreatitis. Patients were analyzed according to age, sex, cause and recurrence of pancreatitis. The management and the outcome of the patients were reviewed.

Result

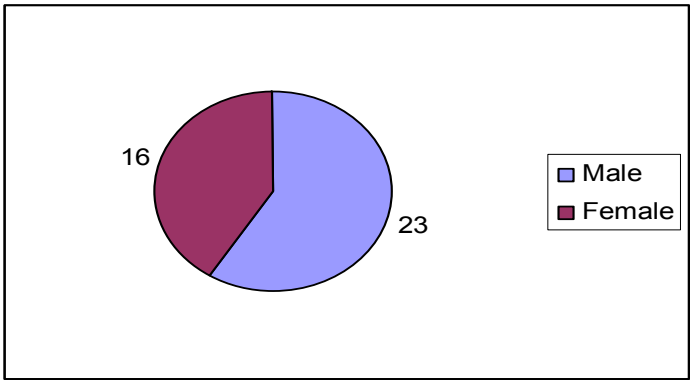
Among the 39 patients admitted for acute pancreatitis to Kathmandu Medical College Teaching Hospital, sixteen (41%) were females and twenty three (59%) males. Their age ranged from twenty-one to ninety years with an average age being forty-one years old.

Correspondence
Dr. Deepak Raj Singh
Department of Surgery
Kathmandu Medical College, Sinamangal.

Table 1. Profile of Patients admitted for Acute Pancreatitis in Kathmandu Medical College

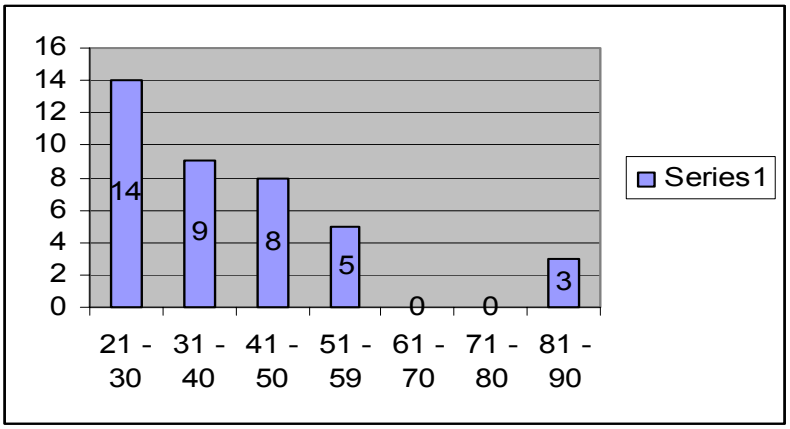
Aetiology	Male	Recurrence	Female	Recurrence	Total
Viral	1	0	1	0	2(5%)
Gall Stone	4	2	9	3	13(33%)
Alcohol	13	5	0	0	13(33%)
Idiopathic	5	1	6	1	11(29%)
Total Number	**23(59%)**	**8**	**16(41%)**	**4**	**39**

Figure 1. Sex-wise Distribution



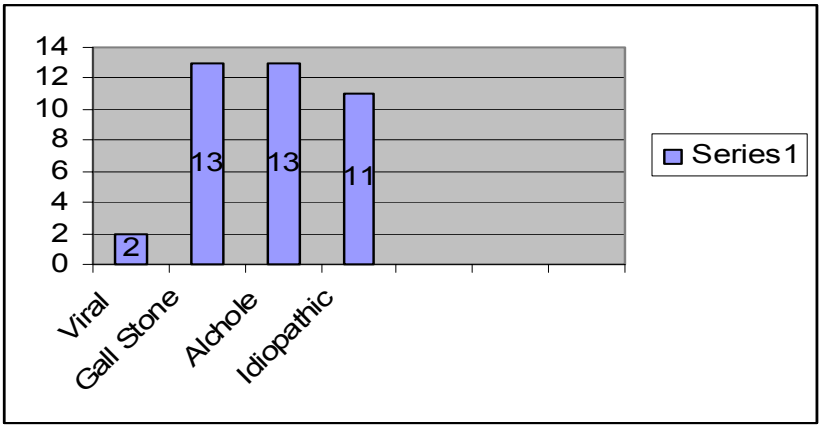
There were more males in our series. All patients with pancreatitis due to alcohol were males. The idiopathic group was almost equally distributed between males and females.

Figure 2 Age-Wise Distribution



Most of the patients were in the third decade (36%) and surprisingly there was no patient within the age bracket of sixty-one to eighty years. There were three patients (8%) over eighty years old.

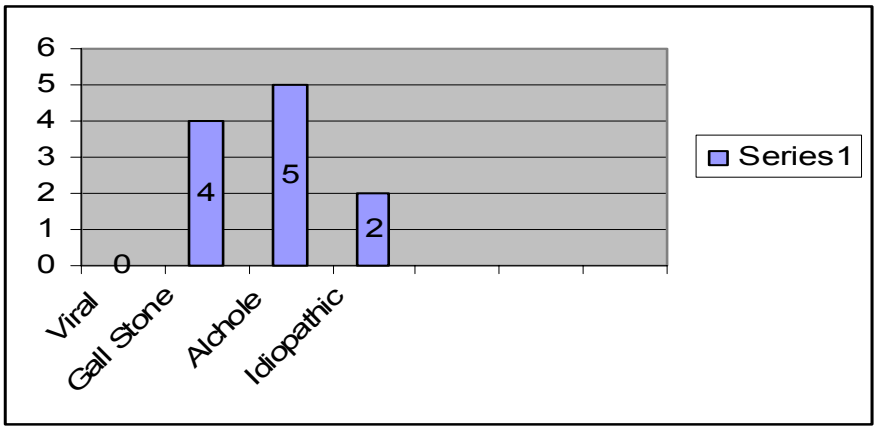
Figure 3. Cause-Wise Distribution



Causes of Acute Pancreatitis

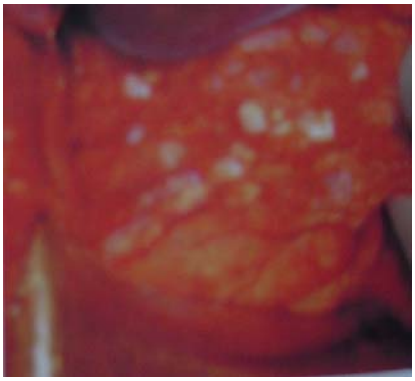
1) **Gallstones** were found in four males and nine females. Total of thirteen (33%) of the patients suffered from biliary pancreatitis. Three in this group underwent emergency surgery.
2) **Alcoholic** cause of pancreatitis was found in thirteen (33%) of the patients. All of them were male.
3) **Viral** cause was found in two (5%) patients. One male and another female patient had mumps.
4) **Idiopathic** pancreatitis was attributed to eleven (28%) patients, five males, and six females. One of the male patients underwent emergency surgery.

Figure 4. Recurrence-wise distribution



Twelve patients (31%) out of the total thirty nine had recurrent attacks of pancreatitis. Three were admitted with more than two attacks. There were five recurrences (33%) among the thirteen patients in the gallstone induced pancreatitis group. An equal number (33%) had recurrence among the thirteen patients in the alcohol induced group. Two patients (18%) out of the eleven patients in the idiopathic group had recurrent attacks.

Figure 5 Pancreas at Operation showing saponification



Management and Outcome

20mg of intravenous buscopan was given eight hourly to all cases of biliary and idiopathic pancreatitis.

Four patients were operated on emergency basis. Three of the patients with pre-operative diagnosis other than pancreatitis were seen to have pancreatitis at operation. Cholecystectomy was performed in two of the patients and peritoneal toileting was carried out in all three. Another lady of eighty four years admitted for the third time was operated because of features of associated cholangitis and had cholecystectomy, common bile duct exploration and peritoneal toileting. All of them were free form the pancreatic pain on the following days.

There were no deaths in this series. One patient form India who had pancreatic necrosis was flown to India.

Discussion

All four patients (10%) operated on emergency basis. One had only peritoneal toileting done; two had cholecystectomy and toileting done. One had in addition to cholecystectomy and peritoneal toileting, common bile duct exploration as well. All the four patients fared well. Though cholecystectomy is recommended after the acute attack settles down, we wonder if cholecystectomy could be undertaken on an emergency in our population presenting with biliary pancreatitis thereby shortening the inpatient hospital stay[9, 10,12]. Further study will help to solve the problem.

Endoscopic retrograde cholangoiopancreatography and papillotomy has been recommended if patients with pancreatitis have features of obstructive jaundice and cholangitis[7]. But this facility is not available in most of our hospitals. Buscopan is used to dilate the sphincter of Oddi to facilitate ERCP[6]. We use 20mg of intravenous buscopan thrice daily in all cases of biliary and idiopathic pancreatitis hoping that the dilatation of the sphincter will dislodge any biliary sludge or microliths impacted in the sphincter of Oddi[11].

Would high dose buscopan be helpful in these patients? The efficacy of buscopan in acute pancreatitis needs to be studied.

It has been seen that 2/3rd to 3/4th of the patients of idiopathic pancreatitis harbour microliths, suspension of cholesterol monohydrate crystals or calcium bilirubinate granules, in the gallbladder[4,5,8]. But without ERCP, it would not be possible to make this diagnosis. That means we will never know the cause of pancreatitis. Should we do a cholecystectomy on these patients? If so, when should it be done?

We believe multi-centre trial could help resolve these issues.

Conclusion:

Pancreatitis is a common cause for admission to hospital with abdominal pain. The chief causes are alcoholic, biliary or idiopathic. The recurrence rate is high from twenty to forty percent if the cause is not dealt with.

1) Since pancreatitis is a common problem and in the absence of ERCP facilities, antispasmodics like buscopan may be helpful to avert the complication of impaction of stones in the sphincter of Oddi[6, 7, 11].

2) Further studies should be undertaken to find out if emergency cholecystectomy with peritoneal toileting helps to shorten the hospital stay in our patient population[9, 10, 12].

3) We may contemplate to offer cholecystectomy to patients of idiopathic pancreatitis. This is of paramount importance since one third of the patients have idiopathic pancreatitis with a recurrence rate of twenty percent[4,5,8].

Further studies to answer these issues are recommended.

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