

Chapter 6

Chronic pancreatitis: Epidemiological and clinical spectrum in Jaipur

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Summary

The spectrum of chronic pancreatitis as seen in our center shows that the main etiological agent is alcohol consumption. The disease is fairly common in North India too. An objective assessment of pain was observed to be useful in the evaluation of the patients before electing a particular therapeutic modality.

Introduction

Chronic pancreatitis is a prevalent and debilitating disease, which affects the patients mostly in their productive years of life. Pain is usually the most frequent complaint with which most of these patients present. The loss of endocrine and exocrine function which gradually develops, leads to symptoms like weight loss, anorexia, steatorrhea and symptoms of diabetes. During the period of 2002 -2004, 126 patients with chronic pancreatitis were admitted to gastroenterology department of SMS medical college. Diagnosis was based on typical symptoms, presentations, biochemical abnormalities ultrasonography, and CT and MRCP findings. The demographic pattern of these patients is shown in Table 1. Most of our patients were in the age range of 21 to 50 years. The youngest patient was of 8-year-old male. There were 90 % male and 10 % female.

Table 1: Demographic profile

Age (Years)	No of patients
<10	3
11-20	15
21-30	16
31-40	39
41-50	36
51-60	12
>60	5
Total	126

Etiology

The etiological workup revealed that 75 patients (51%) had history of consumption of significant amount of alcohol for more than 7 years. Forty-five (60%) of these had concomitant history of heavy smoking along with alcohol intake. They have been smoking bidi / cigarette / hookah / cigar > 20 per day. Twenty-two (17.4%) had evidence of presence of calcification in the main pancreatic duct region as seen on the plain x-ray film of abdomen. None of these persons have been consuming alcohol or have been consuming cassava / or have been residing in Kerala. These were labeled as patients of tropical calcific pancreatitis. Five out of 126 (3.9%) patients presented with features of chronic pancreatitis, and history of pancreatitis in one or more family members. Two were twins – who had been having recurrent severe pains for more than 3 years. Two others were brother and sister. One patient had a brother, who had chronic pancreatitis, and had died. They were labelled as hereditary pancreatitis. They didn't have any other recognizable etiological factor, which could be incriminated for the chronic pancreatitis. Six out of 126 patients (4.7%) had hypertriglyceridemia. There was no other recognizable cause for chronic pancreatitis.

There were thirteen patients who had intermittent severe pancreatic type pain with mild rise of serum amylase / lipase. They had history of intake of opium for more than 10 years. These patients, on investigation, were found to have dilatation of both main pancreatic duct and common bile duct with narrowing and spasm of sphincter of Oddi. Five patients had history of blunt injury abdomen. They were labelled as traumatic pancreatitis.

Table 2: Risk factor profile

Etiology	No. of patients	%
Alcohol	75	59.5
Hereditary	05	3.9
Hypertriglyceridemia	06	4.7
Idiopathic	22	17.4
Opium addict (SOD)	13	10.3
Traumatic	05	3.9
Total	126	100

Socio-economic status

Most of our patients were from lower socio economic status, 78 out of 126 (61.9%) were from low income group. 39 patients (30.9%) were from middle-income group. Only 9 (7.2%) were from high socio economic group. This could be bias due to referral anomaly. Most of our patients are from lower socio economic strata, possibly because our center is a government medical college and hospital which caters to people from this strata.

Table 3: Socioeconomic status

Socioeconomic status	No of patients	%
HIG	09	07.2
MIG	39	30.9
LIG	78	61.9
Total	126	100

Clinical profile

All the 126 patients presented with the chief complaint of abdominal pain. The pain characteristics varied from severe excruciating pain anteriorly above the umbilicus, to pain correspondingly in the back only. This affected their quality of life. Twenty patients (63%) developed loss of appetite; of these 20% had fear of development of pain if they had food and consequently developed loss of weight. Others had loss of appetite due to the disease process. None of the patients had significant steatorrhea. Thirty patients (25%) had lump in the abdomen, due to pancreatic pseudo cyst. Fifteen of these patients had impression in the stomach and endoscopic cystogastrostomy could be performed successfully. Five of the remaining were drained with ultrasound guidance. The other 10 were followed up as they did not have any compressive symptoms demanding any drainage procedure. Twenty four patients (20%) had diabetes mellitus. Fifteen patients had tropical calcific pancreatitis. Eight had history of calcification due to chronic alcoholic pancreatitis. All of them needed injection insulin to control the elevated blood glucose levels.

Twelve patients had jaundice secondary to CBD stricture due to chronic pancreatitis. Nine (8%) had pancreatic ascites. Two patients, in whom it was significant, responded to subcutaneous octreotide treatment.

Table 4: Clinical problems encountered

Sign and symptoms	No of patients	%
Pain	126	100
Ascites	9	8
Diabetes	24	20
Weight loss	63	50
Lump abdomen	30	25
Jaundice	12	10
Steatorrhoea	0	0

Assessment of pain

In most of the clinical situations, the intensity of the pain was assessed on visual analogue scale - either 0 to 10 or 0 to 100 scale. This encompasses only the intensity, which is based on subjective feeling. To add objectivity to the intensity of pain, its frequency and its consequence, a scoring system was used to grade the pain. Its intensity (I) frequency (F) and consequences (C) were assessed at every visit to determine a "pain score". Intensity (I) was given a score of 0 to 8 on the following scale.

Frequency (F) and Consequences (C) were also assigned maximum scores of 8 each, but the latter were made up of 4 score of two different subcategories. Thus the 8 scores of F were made up by 4 scores of pain episodes / year and 4 of duration / year as shown below. Similarly C was assessed by two different parameters each comprising a maximum score of 4.

The maximum score possible of I, F and C together was thus 24. Depending on the sum of the three sets of scores (I, F and C) for an individual patient, he / she was categorized as having: mild

(scores 1-8), moderate (scores 9-14) or severe (score 15-24) pain. The pain score was developed to take into consideration not only the pain severity on visual analog scale, but also other parameters like frequency of pain episodes per year and duration of pain in hours per episodes, consequences leading to work loss in months per year and number of hospitalizations per year. Pain score helped in selecting patients for specific therapeutic interventions in the form of pancreatic stenting, epidural block or surgery to alleviate the pain. Assessment of all above parameters was useful in evaluating the affect of therapeutic interventions pre and post intervention.

The present appraisal from a tertiary care hospital shows that chronic pancreatitis is a common disorder. Alcohol is the main etiological agent. Fairly large numbers of patients with tropical calcific pancreatitis are observed in northern India also. An objective assessment of pain was observed to be useful in the evaluation of the patients before electing a particular therapeutic modality.

Box 1: Assessing the severity of pain

Grade	Variable
No pain	1-0
Insignificant pain (only on direct questioning)	1-2
Mild pain	1-4
Moderate pain (analgesics regularly required but no drug dependency)	1-6
Severe pain (drug dependency present and sleep disturbed regularly)	1-8

Box 2: Scoring the frequency/consequences of pain

Score	0	1	2	3	4
(F) Frequency					
Of pain episodes / year	3	4-6	7-9	10-12	12
Duration in hrs / episode	< 12	12-24	24-28	48-78	72
(C) Consequence					
Work loss in months / year	0	1	2-4	5-8	8
No. of hospitalizations / year	0	4	5-8	9-12	12

Table 5: Pain score of patients in the present study

Pain Score	No of patients	%
1 – 8 Mild	25	20
9 – 14 Moderate	25	20
15 – 24 Severe	76	60
Total	126	100

Table 6: Diagnostic imaging in the present series

Investigations and finding	No. of patients
X ray abdomen	
* Parenchymal	3
* Ductal	
Site of calcification	
Head alone	21
Head and body	3
Body	4
Body and tail	4
Whole MPD	2
USG Abdomen	126
MPD Dilatation	60
Tropical	22
Opium	13
Alcohol related	25
MPD calcification	34
Parenchymal calcification	3
Pseudocyst	24
CECT	60
MPD Dilatation	35
Calcification	
Ductal	34
Parenchymal	4(one more than USG)
MRCP	10
MPD Dilatation	10
ERCP	75
Pancreatic ductal calculi	34
Dilated and tortuous MPD	55

Reference

1. Chronic calcific pancreatitis: Clinical profile in northern India. RR Rai, SK Acharya, S Nandy, S Vashisht and RK Tandon. Gastroenterology Japonica 1988; 23 (2); 195-96