Chapter 9

Tropical pancreatitis: data from Manipal

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Summary

At the Kasturba Hospital in Manipal, tropical pancreatitis is still the commonest variety of chronic pancreatopathy. Oxidant stress plays a major role n the genesis of TP, and in our studies with curcuma curcumin, we have shown that oxidant stress-related changes are reversible. However, clinical benefits of curcumin therapy are questionable.

Introduction

At Kasturba Hospital Manipal, we see about 20 new cases of chronic pancreatitis in a year. They constitute less than 1% of patients presenting to the hospital for the first time. About 60% have tropical pancreatitis (TP) and the rest, alcoholic. Other types of chronic pancreatitis are seldom encountered. The following data pertain to 72 patients with TP (old and new cases) collected over a four year period from 1997-2000.

Age and sex patterns

The patients were aged 5 – 73 (mean 27.6) years. While the majority were younger than 41 yrs of age, it is interesting to note that 6 pts (8.3%) were older. The male to female ratio was 3.2 : 1. They had symptoms for 1 week to 20 years at the time of evaluation. The classic description provided by Geevarghese, of pain in childhood, diabetes in adolescence and death in the prime of life is rarely encountered these days.

Clinical features at presentation

Sixty-eight (94%) had abdominal pain, 27 (37.5%) had diabetes mellitus, and 17 (23.6%) had history suggestive of steatorhoea. Pancreatic calcification was seen in 45 (62.5%), pseudocysts in 9 (12.5%), bile duct strictures in 4 (5.5%), pancreatic cancer in 3 ((4.2%) and splenic vein thrombosis in 3 (4.2%). Four (5.5%) were addicted to opiates.

Treatment

We treat abdominal pain in these patients with anti-oxidants (Cap Antoxid 1 tid), and pancreatic enzymes supplementation (6-9 tablets/day)

along with analgesics as necessary. About 75 to 80 % respond. Those who do not, are treated endoscopically with stenting and spincterotomy of the pancreatic duct. Thirteen patients from the above series underwent the procedure, but the data pertaining to a longer period, is given in table 1.

Table 1: Results of endoscopic therapy in tropical pancreatitis

Evaluable patients	(n=19)	Remarks
Successful sphincterotomy +/-stenting	17 (89%)	Both = 14 Sphincterotomy only = 3
Major complication	1 (pancreatic sepsis)	Requiring stent removal
Stent free at 6 months	8	
Pain relief	14 (74%)	
Further follow-up of	6 - 20 mo	Pain relief persisted

Targeting oxidant stress

We have shown that oxidant stress occurs in patients with TP and also that treatment with curcumin (500mg), an anti-oxidant derived from turmeric, along with piperine (5mg), reverses these changes. However there was no improvement in pain in these patients. We are now investigating whether a higher dose of the drugs and more prolonged treatment could accrue clinical benefit.

Surgical therapy

Lateral pancreatico-jejunostomy was done in 6 (8.3%) of the 72 patients either because of failed endoscopic procedure or non-response. There was good response initially in 5 of these.

Tropical pancreatitis and idiopathic pancreatitis of the West

TP appears to have changed in its clinical presentation over the last few decades since the original description given by Geevarghese. Our own

data and those from elsewhere in the country on the genetic abnormalities, clinical features, and the risk of malignant transformation support this assumption and raise some interesting questions:

Is TP the same disease as the idiopathic pancreatitis of the West? If so, why does it still behave differently from the disease prevalent in the West? Could the changes in the dietary patterns that have occurred in the last few decades explain the evolution of the clinical presentation of TP seen in recent decades? With further improvement in the nutritional value of our diet and 'Westernisation' of our food habits, will TP homogenize itself into a single entity of "Idiopathic" (or distinct subgroups of genetically determined) pancreatitis?

References

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3. Pai C G et al. Anti-oxidant effect of curcumin in tropical pancreatits: a pilot study. 2004 (Manuscript under review.)