

## AYURVEDIC MANAGEMENT OF CHRONIC PANCREATITIS: A CASE STUDY

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### ABSTRACT

**Introduction:** Chronic pancreatitis is a progressive inflammatory disorder that leads to irreversible destruction of exocrine and endocrine pancreatic parenchyma, resulting in atrophy or replacement with fibrotic tissue. It is a case study of 11 years old male child, a diagnosed case of chronic pancreatitis with recurrent abdominal pain for the last 8 months and vertigo for the last 2-3 months on & off along with elevated serum amylase and serum lipase levels. After taking conservative medicines from contemporary science, he did not get satisfactory relief & therefore he came to government Ayurveda College & Hospital, Bikaner in *Balroga* OPD for Ayurvedic management. **Materials & Method:** After clinical examination, he was diagnosed with *Vata-Pittaj Agnashaya shoth* (pancreatitis). The line of treatment was *Vata-Pitta Shamaka Chikitsa* that includes a poly herb combination of *Avipatikara Churna*, *Vayvidanga Churna*, *Sankha Bhasama* and *Godanti Bhasama* mixed well and advised with normal

water along with *Punarnava Mandura*, *Arogyavardhini Vati*, syrup Liv52 and syrup *Amalpitta Mishrana*. **Observation & Result:** After 4 months of Ayurveda treatment significant improvement was observed in all the symptoms like abdominal pain, nausea and

abdominal tenderness. In biochemical parameters also, significant improvement were seen and post treatment serum Amylase & Serum Lipase levels were within normal limits.

**Discussion & Conclusion:** In Ayurveda, this disorder can be compared with *Grahni* or with *Vata-Pittaj Agnashaya shotha* because *Grahni* is site of *Agni* so the principle of treatment is *Vata Pitta Shamana Chikitsa* which balances the *Doshas* and use of *Yakruttejaka* (Hepato stimulant) drugs.

**KEYWORDS:** Pancreatitis, *Grahni*, *Agnashayashotha*, *Yakruttejaka*, *Pittashamaka*.

## INTRODUCTION

Chronic pancreatitis is a progressive inflammatory disorder that leads to irreversible destruction of exocrine and endocrine pancreatic parenchyma, resulting in atrophy or replacement with fibrotic tissue.<sup>[1]</sup> Chronic pancreatitis progressively damages the pancreas and results in the loss of function.<sup>[2]</sup> Incidence of chronic pancreatitis are 8.2 new cases per one lakh every year and a prevalence of 26.4 cases. There is mortality rate of 30% in 10 years of age.<sup>[3]</sup> Chronic pancreatitis in children is often due to genetic mutations or due to congenital anomalies of pancreatic or biliary ductal system.<sup>[4]</sup> However, the exact pathogenesis is not clear. The pain is aggravated by lying down and is relived to some extend by sitting and stooping forward.<sup>[5]</sup> In *Ayurveda*, this disorder can be correlated with *Grahani* or can be with *Vata-Pittaj Agnashayashoth*. The prime site of *Agni* is *Grahani*.<sup>[6]</sup> Vitiating of *Agni* causes *Grahani Dosh*.<sup>[7]</sup>

## Need of the study

The treatment of this disease is challenging because it's life-threatening, the irreversible and progressive nature, limitations of traditional therapy and substantially high cost of surgical approach, resistance to antibiotics etc. Therefore, it is need of the hour to search for supportive, effective and safe treatment in *Ayurveda*.

## MATERIAL AND METHODS

A case study of 11 years old male child belong to middle class family was from Bikaner, Rajasthan. His OPD No. is 20842. The chief complaints of the patient with severity and onset of duration are depicted in table 1.

**Table 1: Clinical symptoms.**

Sr. No.	Symptoms	Severity	Duration
1.	Recurrent episodes of pain in epigastric region	3+	8 months
2.	Vertigo	2+	2-3months on/off
3.	Tenderness over the epigastric region	3+	8 months
4.	General malaise	2+	8 months
5.	Loss of weight	2+	8 months
6.	Mental irritation	2+	8 months
7.	After meal heaviness in abdomen	2+	8 months

**CASE DESCRIPTION**

On 13/10/2022, A 11 years old male child with no family history of pancreatitis presented with the complain of pain in abdomen, vomiting and fever. He was admitted to the Sugni devi Jaisaraj hospital and research centre Bikaner on date 14/10/2022 for 8 days and treated thereafter with antibiotics, antipyretic and analgesics drugs. He was diagnosed with acute pancreatitis and blood investigations value was very high where serum amylase level was elevated to 1706 IU/L. After 8 days of treatment the patient did not get satisfactory relief than he refers to paediatric gastrologist on guardian's request.

On date 22/10/2022 he was admitted to Santokba Durlabhji memorial hospital cum research institute, Jaipur with complain of chronic abdominal pain in epigastric region, chronic constipation, weight loss 3kg in last month, nausea (not vomiting) and fever. He was admitted 3 days in the hospital, all investigation were normal only serum amylase 696 IU/L and lipase 2248 IU/L were elevated and USG showed significant mesenteric lymphadenopathy, gall bladder cholesterolosis. He was diagnosed with acute pancreatitis. After 3 days of treatment his symptoms were reduced and he was discharged.

After 3 month on date 05/02/2023 patient had admitted to Sugnadevi Jaisaraj hospital and research centre Bikaner with the complain of persistent vomiting and abdominal pain. He was diagnosed chronic pancreatitis and serum amylase level was elevated to 3250 IU/L. After 6 days of treatment, vomiting was stopped but pain in abdomen persistent so he was referred to higher centre for further management.

On date 10/02/2023 patient had admitted to divisional railway hospital, Lalgah, Bikaner with complain of abdominal pain. CECT Scan whole abdomen showed mild acute edematus pancreatitis. After 7 days of treatment he did not get relief in abdominal pain than he was referred to central hospital NWR, Jaipur.

On date 17/02/2023 he was admitted to central hospital NWR, Jaipur with complain of epigastric pain and tenderness. After investigation TLC 26.86 c/ul, ESR 30mm/1<sup>st</sup> hour, CRP 138.52mg/l, S. Amylase 874.71 IU/L, S. lipase 228.51 IU/L were elevated. USG showed pancreatitis. He was diagnosed with acute pancreatitis and discharged on date 25/02/2023.

After one month on date 25/03/2023 he was admitted to divisional railway hospital, Lalgargh, Bikaner with complain of abdominal pain. After 9 days treatment on date 02/04/2023 he was discharged.

On date 13/05/2023 he was admitted to divisional railway hospital, Lalgargh, Bikaner with complain of abdominal pain. USG showed pancreas is moderately enlarged in size, irregular in margins, in homogenous in echo texture with a few tiny calcifications and peripancreatic fluid collection suggestive of acute or chronic pancreatitis. After 18 days treatment on date 30/05/2023 he was discharged.

On date 24/06/2023 patient came to the Balroga OPD of Government *Ayurveda* Collage and Hopital Bikaner with the complain of recurrent abdominal pain for the last 8 month and vertigo for the last 2-3month on/off along with elevated serum amylase and serum lipase.

### History of present illness

Detail history of patient is showed on Table 2.

**Table 2: History of the patient.**

Sr. No.	History	Details of the patient
1.	Birth history	Normal single vaginal delivery
2.	Past history	History of recurrent hospitalization for last 08 months Weight loss since 8 months No H/o significant surgery No H/o drug allergy/ any allergy No H/o Trauma
3.	Family History	Father - no any significant disease Mather - no any significant disease Siblings – Normal
4.	Personal History	Diet –vegetarian Sleep – sound sleep
5.	Immunization History	Complete as per government schedule

### Examination and Investigation

After examination of the patient as per *Ayurveda* and modern perspective findings are showed in table 3 & 4.

**Table 3: Ashtvidha pariksha.**

Sr. No.	Types of <i>pariksha</i>	Observation
1.	<i>Nadi</i> (Pulse Rate)	96/min.
2.	<i>Mutra</i> (Urine)	6-7 times/day
3.	<i>Mala</i> (stool)	Irregular
4.	<i>Jivha</i> (Tongue)	<i>Niram</i>
5.	<i>Shabda</i> (Speech)	Normal
6.	<i>Sparsha</i> (Touch)	Normal (Afebrile)
7.	<i>Druka</i> (Vision)	Good
8.	<i>Akruti</i> (Posture)	<i>Krusha</i>

**Table 4: Examination specific to diagnosis according to modern science.**

Sr. No.	Type of examination	Findings
1.	General examination	Pallor- absent Icterus - absent No lymphadenopathy Temperature -98.6 F RR- 24/Min. Weight- 24.5kg Bowel-2/3times a day Bladder-clear
2.	On palpation	Tenderness on epigastric region 2+ Murphy's sign- negative No organomegaly Fluid thrill absent
3.	On percussion	Tympanic note was present Shifting dullness absent
4.	On auscultation	Bowel sound present

### Therapeutic intervention

The details of the treatment protocol are given in the table 5.

**Table 5: Therapeutic treatment.**

Sr. No.	Drug	Dose	Duration
1.	<i>Avipatikara Churna</i> -2gm <i>Vayvidang Churna</i> -1gm <i>Sankha Bhasama</i> - 125mg <i>Godanti Bhasama</i> - 125mg	Three times a day after meal/breakfast	04 months
2.	<i>PunarnavadiMandura</i> 125mg	1 tab. three times a day after meal/breakfast	04 months

3.	<i>Arogyavardhini Vati</i> 250mg	1 tab. three times a day after meal/breakfast	04 months
4.	Syrup. Liv 52	7.5ml two times a day after meal	04 months

After 25<sup>th</sup> days of treatment one more drug *Amalpitta Mishrana* in dose of 7.5ml BD after meal was added.

## DISCUSSION

In this case study the clinical symptoms i.e. pain in the abdomen, vertigo, nausea and vomiting all indicated the vitiation of *Vata* and *Pitta Dosha*. The patient come in the chronic stage of pancreatitis with symptoms of recurrent attack of pain in abdomen, where complication have not yet appeared, and no steatorrhea and diabetes mellitus, indicating preservation of exocrine and endocrine function of the pancreas.<sup>[8]</sup> Recurrent abdominal pain, vertigo showed predominance of *Vata Dosha* and *Amaavastha* (pro inflammatory stage), so its patho-physiology can be correlated to *Vataja Grahani Dosha* (*Grahani* vitiated due to *Vata Dosha*).<sup>[9]</sup> Nausea and vomiting due to increased *Sampitta Dosha* (*Pitta* associate with *Ama*).<sup>[10]</sup> *Agnashya* (Pancreas) plays a key role in metabolism, due to *Agni Dushti* results in the manifestation of gastrointestinal tract symptoms like pain in abdomen, nausea & vomiting.

The main objective of the treatment was to change the *Amavastha* into *Niram Awastha* and normalize *Vata* and *Pitta Dosha* so the function and biochemical parameter of pancreas is restored. *Vata Pitta Shamaka* and *Rasa Shodhaka* medicines were planned according to principle governing vitiation of *Annavaha* and *Rasavaha Srotas*. He was advised to avoid spicy, oily, heavy and junk food, curd, pickle, fatty food and packaged foods. He was advice to avoid day time sleeping too.

*Vata-Pitta Shamaka* poly herbomineral formulation which contains *Avipattikara Churna*, *Vaayvidanga Churna*, *Shankha Bhasama* and *Godanti Bhasama* was prescribed.

*Avipattikara Churna* acts as *Pittavirechaka* and it has *Pittashamaka Dravyas* thus help in removing the excess *Vitiated Pitta* and alleviates the digestive complaints.<sup>[11]</sup> *Vaayvidanga Churna* (*Embelia Ribes*) are having *Katu Rasa* and *Katu Vipaka* properties that work on *Aamdoshapachana*, *Agnivardhana* and its *Ushan, Tikhana Guna* work as *Mrudurechana*.<sup>[12]</sup>

*Shankha Bhasama* has found to be effective in treating GERD (gastroesophageal reflux disease) and has *Pitta Vata Shamaka* properties.<sup>[13]</sup>

*Arogyavardhini Vati* is indicated in *Medo Dushthi*, *Yakritvikara*, *Prameha* and *Jirna Jwara*.<sup>[14]</sup> The ingredients of *Arogyavardhini Vati* are having *Kutki*, *Tamra Bhasama* and *Abhraka Bhasama* which show significant results in the liver disease due to its hepatoprotective action. It is very useful in *Amapachana* and digestion of fat by stimulating the bile secretion.<sup>[15]</sup> *Kutki* and *Triphala* helpful in *Pitta Virechana* and *Yakruta Uttejaka*.<sup>[16]</sup> *Abhraka Bhasama* and *Shilajita* (Asphaltum) repair the cells and helps rejuvenate them.<sup>[17]</sup> *Guggulu* (*Commiphora mukul*) is having the antioxidant and anti-inflammatory properties.<sup>[18]</sup> *Loha bhasama* is helpful to treating anemia, debility, and hepatosplenomegaly.<sup>[19]</sup> *Chitraka* (*Plumbago zeylanica*) helps to relive indigestion and loss of appetite.<sup>[20]</sup>

The ingredients of *Punarnavadi Mandura* are *Triphala*, *Trikatu*, *Chitraka*, *Vidanga* and *Pippalimoola* are having *Deepana Pachana* and *Vatanulomaka* properties. *Trivrita*, *Haritaki* and *Danti* are having *Pittavirechana* property, and *Haridra*, *Daruharidra*, *Amalaki*, *Pippali*, *Punarnava* and *Kushtha* are having immunomodulator and antioxidant properties.<sup>[21]</sup>

Syrup Liv 52 formulation reduces oxidative stress, possibly by preventing intracellular glutathione depletion and reducing lipid peroxidation, indicating its hepatoprotective effect<sup>[22]</sup> The formulation significantly improves the child plug score, decrease ascites and decrease levels of serum alanine aminotransferase (ALT) and aspartate aminotransferase (AST). The overall effect is seen due to the diuretic, antioxidant, anti-inflammatory and immunomodulatory properties of the component herbs.<sup>[23]</sup>

In Biochemical parameters, significant improvement was seen in Serum Amylase & Serum Lipase levels which are shown in Table no. 6. Before treatment serum amylase level was 2839 U/L and serum lipase was 76100 U/L and during the treatment serum amylase and serum lipase levels were 96 U/L & 62.5 U/L respectively. After treatment serum amylase and serum lipase were within normal range which were 51.1 U/L & 51.1 U/L respectively.

**Table 6: Investigation details.**

Investigations	Before Treatment 19/05/2023	During Treatment 04/09/2023	After Treatment 11/10/2023
Serum amylase	2839 U/L	96 U/L	51.1 U/L
Serum lipase	76100 U/L	62.5 U/L	51.1 U/L



*Amalpitta Misharna* ingredients are *Vasa, Guduchi, Pittapapada, Nimba, Chirayta, Bhringraja, Triphala, Patola, Yastimadhu, Shouktika Bhasama* indicated in *Pittaja* disorders, nausea, vomiting and abdominal pain.

## CONCLUSION

The case study shows that Ayurveda medications along with diet & lifestyle modifications are highly effective in the management of chronic pancreatitis. Although, more such studies are needed to establish this fact.

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