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# **Case Study**

# **AYURVEDIC MANAGEMENT OF PANCREATITIS**

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Article info	ABSTRACT				
Article History: Received: 19-12-2023 Accepted: 13-01-2024 Published: 04-02-2024 KEYWORDS: Pancreatitis, Agnashayashoth, Pitta Dosha, Pittodara, Shankha vati, Kravyadi ras, Arogyavardgani vati.	Pancreatitis is the life threatening metabolic pathology of the gastrointestinal system. It progressively damages the pancreas and result in the loss of its functions. The prevalence rate of pancreatitis in India is 7.9 per 10, 0000. For male and female respectively 8.6 and 8 in India. With overall 10 year and 20 year survival rates are estimated to be about 70% to 45% respectively. In the contemporary science the treatment protocol is limited to painkillers, intravenous fluids and pancreatic enzymes. Despite of advance techniques in the allopathic science the prognosis of the disease is unclear. Ayurvedic formulations of mineral complex including a diet and moderate rest have shown excellent result. In this case report a 40 year old male patient a known case of chronic pancreatitis with recurrent abdominal pain which radiates to back, nausea, vomiting, tenderness, anorexia, along with elevated serum amylase level was managed effectively with Ayurvedic medications by the Department of PG Study in Shalyatantra OPD Dr.BRKR Government Ayurvedic Medical College and Hospital, Hyderabad. In Ayurveda this condition can be correlated <i>Agnashayashoth</i> which comes under <i>Pittodara</i> . And it was successfully treated with the medications like <i>Shankha vati, Kravyadi ras, Arogyavardgani vati.</i> Within 4 months of treatment patient become normal. There was no pain abdomen, nausea, vomiting, bloating of abdomen. And serum amylase came to its normal level. This shows that Ayurvedic herbo mineral formulations showing promising result in the management of pancreatitis.				
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#### **INTRODUCTION**

Pancreas is an elongated retroperitoneal organ. It performs both endocrine and exocrine functions. Exocrine part secretes pancreatic juice which helps in digestion of proteins, carbohydrates and fats. P- type amylase is synthesized by acinar cells and secreted into the intestinal tract via the pancreatic duct.<sup>[1]</sup> Endocrine part constitutes islets of pancreas which is distributed more numerous in tail of pancreas. This help to digest carbohydrate. In pathological condition of pancreas the amount of amylase get increase into the blood.  $\beta$  cells of islets secrete insulin.  $\alpha$  cells secrete glucagon. Which are involved in the homeostasis of blood glucose and involve in control of upper GI motility and function.



The major enzymes involved in the digestion of proteins are trypsinogen and chymotrypsinogen. Pancreas have cluster of cells called pancreatic acinar cells and these cells produces digestive enzymes and travel through the pancreatic duct to small intestine. In the pathological conditions of pancreas that is pancreatitis there is inflammation of part of the pancreas and acinar cells got damaged and release digestive enzymes including amylase into the surrounding structure of the pancreas. And because of the enzymes not release into the pancreatic duct and damages the cells and vasculature of the surrounding area. Amylase level increases into the blood level. There is structural and functional damage of the pancreas. It is a life threatening condition. Clinical manifestation includes chronic adnominal pain, nausea, vomiting, indigestion, steatorrhea, diabetes, weight loss, and many acute and chronic complications.<sup>[2]</sup> The probable causes includes Vidagdha aahar sevana, Adhaysana, Anashana etc which causes imbalance in Agni and according to modern science alcohol, malnutrition factors, gall stones, any pathological condition which causes

obstruction of pancreatic duct, injury to pancreas, certain medicine side effects, high cholesterol and high calcium levels in the blood, autoimmune disease, genetic etc.

Healthy state of body and diseased condition depends entirely on *Agni. Vata* stimulates the digestive fire. *Jatharagni* is important because it facilitates secretions of various chemicals, enzymes etc which helps in proper digestion and proper functioning of body. According to Ayurveda disturbed function of *Agni* is considered as the root cause of the all diseases. A poor diet and unsupportive life style and can easily hinder the function of the *Agni*.

According to Ayurveda, *Pitta* can be considered as "*Aqni*"<sup>[3]</sup> and the term of *Pitta* is derived from "*Tap santape*" means to heat or burn. And its characters are Pachana, Dahana, Parinamana, Pakti, Raag, Ushama. A type of pitta that is *pachak* pitta may refer to the gastrointestinal enzymes which include a wide variety of digestion secretions like bile, pancreatic juice and intestinal secretions. Like Pitta describe in Ayurveda the enzvmes perform similar function like Sanahatbheda (splitting). Parinamana (transformation), Pravruti (mutation), Dahana (oxidation).<sup>[4]</sup> Thus in *Pitta* have substance exactly similar to enzymes.

Based on some similar clinical features of pancreatitis this condition can be correlated with to the *Pittodar*. Symptoms of *Pittodar* like *Daha, Jvara, Murcha*. "Cellens sing" - the bluish discoloration around umbilicus can be correlated with *Nila* and *Pitta vrana tamraraji* over the abdomen which is described in *Pittodara*.<sup>[5]</sup>

# **Case Report**

A 40 year old male patient a known case of pancreatitis for the last 1 month visited to OPD of Shalyla tantra department, Dr. BRKR Ayurveda Medical College, Hyderabad, on 19<sup>th</sup> April 2023 with complains of dull pain in the abdomen which radiates to back, indigestion, decreased appetite, burning sensation in the chest and nausea for the 1 month. So he visited our hospital for better treatment. His personal history revealed that he has habit of intake of alcohol and irregular dietary patterns.

# **Personal History**

General condition: Fair, pallor appearance

Jihva: Sama (coated)

Aakruti- Madhyam

Abhyavaharan (power of appetite): Avara (poor) Jaranshakti: Avara (poor)

Mala: Regular

Mutra: Daha yukta

Habits: addicted to alcohol, H/O alcohol intake more than 5 years (type of alcohol is beer. Typically 2 to 3 beer per session, 4 to 3 times a week).

Diet: mixed

#### **Diagnostic Criteria**

On general examination the patient was seen as pallor in appearance with tenderness in the epigastric region, recurrent abdominal pain and discomfort, anorexia, burning sensation in chest and indigestion with nausea were the major complains similar clinical feature have been described in the context of *Pittodara*, where indigestion, burning sensation, nausea are present.

On Auscultation: Bowel sound present

On palpation

- Tenderness in epigastric region+ (grade-1)
- No organomegaly
- No rebound tenderness
- Murphy's sign negative
- Fluid thrill absent

His other systemic examinations reveal no abnormality.

Finding of ultra-scan of abdomen reveled chronic pancreatitis, serum amylase level increase more than three times to normal value. Based on history, clinical symptoms, examination and investigation findings a diagnosis of pancreatitis have been made.

#### **Therapeutic Intervention**

Therapeutic outcome obtained after a full course of *Shodhan* and *Shamana chikitsa* for four months. The patient becomes ultimately symptoms free, after starting medication which are described below in table.

#### **Medication for Starting Six Weeks**

S.No	Medication	
1.	Shankh vati 2TID/BF	
2.	Kravyadi rasa 2TID/BF	
3.	Arogyavardhini vati 2TID/AF	

#### Medication for next six weeks

S.No	Medication		
1.	Laghu sutshekhar ras 2TID/BF		
2.	<i>Bhringrajasava</i> 5TSF/TID/AF with equal quantity of water		

#### Follow Up and Out Come

The patient visited on the 5<sup>th</sup>, 14<sup>th</sup>, 21<sup>st</sup>, and 42<sup>nd</sup> days for clinical assessment. On day 5<sup>th</sup> relief in pain abdomen was noted, on 14<sup>th</sup> day absent of tenderness and improved appetite. On the 21<sup>st</sup> day complete relief of symptoms. On the 42<sup>nd</sup> day the patient showed complete improvement and serum amylase level came to normal level.

# Assessment of Symptoms Before and After Treatment

Symptoms	Before Treatment	After Treatment
Constant dull pain in upper abdomen and discomfort	4+	0
Low appetite	4+	0
Nausea	3+	0
Burning sensation in chest	3+	0
Tenderness over epigastric region	2+	0
Loss of weight	3+	1+

#### Serum Amylase Impression

	Date	Value
	21/04/23	1510 U/L
	4/5/23	246 U/L
	23/7/23	98U/L
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# Discussion and Probable Mode of Action of the Drug

Udara roga is Tridoshaja vyadhi. The prime cause of Udararoga is Agnidusti along with Dusti of Udaka vaha and Rasavaha srotas. The Moola sthana of Udaka vaha srotas is consider as Talu and Kloma.<sup>[6]</sup> According to Archarya Shushruta kloma <sup>[7]</sup> can be correlated with the pancreas. Srotas are the micro channels which provide platform for activities of Tridosha, Dhatu, and Aqni etc physiological perspective of Srotas plays vital role towards the normal health Status of an individual. If any disturbed improperphysiological function of Srotas can leads many pathological conditions. The Srotomoola can be compared with the root of tree any injury to the roots of tree leads to the destruction of the tree similarly malfunctioning of Srotomoola can affect the whole *Srotas*. So *Moolas* cans be the physiological controlling center of the Srotas. The entire range of health and disease depends on the integrity of the Srotas which is prone to vitiate and lose its integrity due to lifestyle disorder and faulty food habits resulting in pathological conditions. Any macro or micro obstruction in the channels leads to of Stroto dusti which causes malfunction at the Stroto level. In the normal condition pancreas produces digestive enzymes which travels through pancreatic duct and empty into the duodenum. There are various cause which leads to pancreatitis among them one is narrowing or obstruction<sup>[8]</sup> of pancreatic duct which forces digestive and proenzymes of the pancreas to backup and accumulate into the pancreas leading to inflammation of pancreas and ultimately leading to pathological condition called pancreatitis. And the acinar cells of pancreas got damaged and release digestive enzymes including amylase into the surrounding structure of the pancreas. There are various conditions which leads to obstruction or narrowing of ducts are like gallstone, pancreas cancer,

heavy alcohol intake, injuries from trauma or surgery etc. in this case patient was habituated to intake of alcohol and had history of unhealthy food and lifestyle. With prolonged alcohol intake protein is precipitated in pancreatic juice within the ductules leading to ductular obstruction and increased pressure within the ductules<sup>[9]</sup> and by premature activation of digestive enzymes within acinar cells of pancreas. Based on similar clinical features this condition can be correlated with Pittodar. Madhya is Amalaras Pradhan, Ushnayavirya and Amla vipaki dravya<sup>[10]</sup> so Adhik Madhya seven leads to vitiation of Pitta dosa. So vitiated *Pitta*, *Vata* and *Kapha* leads to malfunctioning of the Kloma (pancreas). The main objective of the treatment was to manage the symptoms and restore the normal function of pancreas. The first choice in Udara roga is Virechan aushadha because Nitya virechana<sup>[11]</sup> is the line of treatment here. Since Srotorodha occurs in Udara, it is necessary to go for Srotoshodhana in order to remove the obstruction using the Teekshna and Ushna guna of Virechana *dravvas*. The best treatment for *Pitta* and *Udar roga* is considered as Virechan. So Murudu virechan is indicated here. Kravyadirasa<sup>[12]</sup> is indicated in the context of Udararoga, Agnimandhya, Mandagni, and Ajeerna. Arogyavardhani vati [13] have Deepani, Pachani, Tridosha samak and Malasudhikari actions. It promotes digestive fire and clears the body channels. Kravvadi ras and Arogvavardhani vati both contains. Parada, Gandhaka, Loha bhasma and Tamra bhasma are main ingredients. Tamra bhashma have Udhva and Adho marg shodak guna<sup>[14]</sup> means it clears Strosanga in kloma and act as Virechak dravva and eradicates Dushita pitta. Loha bhasma is known to have Pitta balancing effect<sup>[15]</sup>. Its absorption is quite easy from the digestive tract so it can enter smoothly into the microchannel of the body and helps in removal of obstruction. Shankha vati [16] is mainly indicated in the disorders of gastro intestinal tract conditions like

Shoola, Grahni, Vata and Pitta disorders, Udara roga, Amlapitta, Agnimandhya etc. Classically Shankha bhasma have Sheeta veerva. It has acid neutralizing capacity which helps to reduce the symptoms like nausea, burning sensation in the chest and removes the Agnimandhyata. Here Amla guna of Pitta becomes *vidagdha.* Hence *Laghu sutshekar ras* <sup>[17]</sup> mainly acts on Pitta dosa. Bhringraigsava<sup>[18]</sup> have Gung like "Krishanam mahapusti kurute" and Mahabala kara it is also indicated in the conditions like Dhatukshvava. So in this case patient was complaining about weight loss. So Bhringrajasav is indicated here it also helps to restore the normal function of digestive fire. Hence patient was treated with the integrated approach of Deepana, Shodhan. Shanama. Pachana and Vatanuloman chikitsha. So Aushadha, Nidana parivarjana, Pathya apathy palan plays most important role in the management of pancreatitis.

# CONCLUSION

This single case study shows that *Shodhana* and *Shaman chikitsha*. Using the fundamentals of Ayurveda we can effectively manage case of pancreatitis. This case study will provide a model for future Ayurvedic research in gastrointestinal disorders.

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