

**AYURVEDIC APPROACH OF CHRONIC CALCIFIC PANCREATITIS WITH MULTIPLE
INTRADUCTAL CALCULI - A SINGLE CASE STUDY****Dr. Shishir Suryakant Paratane***

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ABSTRACT

Ayurveda is a traditional Indian system of medicine that focuses in holistic well-being by balancing mind, body and spirit. As per Ayurvedic principles, diseases are caused due to an imbalance in tridosha due to various factors, in such cases several descriptions regarding medicines and various procedures along with lifestyle and diet modifications have been prescribed in ayurvedic texts for restoration of health, this article aims a single case study through ayurvedic management along with diet and life style modifications in chronic calcific pancreatitis resulting in reduced sign and symptoms with absence of intraductal calculi in main pancreatic duct after continuous six months treatment.

KEYWORDS: Chronic calcific pancreatitis, Agni, Ama, Agnashay, Shaman chikitsa.**INTRODUCTION**

Our body is an amazing piece of biological, with every organ serving a crucial role in maintaining our health. Among them, the pancreas is responsible for producing enzymes for digestion and regulation of blood sugar through insulin. However, when pancreas gets inflamed and damaged over time, it leads to condition called Chronic Calcific ancreatitis.

Chronic calcific pancreatitis is a form of chronic pancreatitis characterized by long term inflammation of the pancreas leading to the development of calcium deposits (calcifications) within the pancreatic tissue.^[1] Common symptoms include abdominal pain, typically in upper abdomen and potentially radiating to back, often worsening after eating, oily-foul smelling stools, weight loss, nausea, vomiting and diabetes in later stage due to diabetes.^[2]

Around 80% of cases in western countries result from alcohol misuse, in southern India severe chronic calcific pancreatitis occurs in non-alcoholic possibly as a result of malnutrition and dietary cassava consumption, other causes include auto-immune factors and also some obstructive conditions. Global prevalence for chronic calcific pancreatitis (CCP) is 50-100 cases per 1 lakh people and approximately 3% to 35% of individuals experiencing their first episode of acute pancreatitis may develop chronic pancreatitis over several years.^[3] The phytochemicals with anti-inflammatory and antioxidant

abilities may be valuable drugs for the treatment of pancreatitis. Many phytochemicals (berberine, curcumin, ellagic acid, cinnamtannin B1, resveratrol, piperine, and lycopene) hold the potential to improve the symptoms of pancreatitis.^[4] Complications management is done by surgical therapy (ERCP) or Endoscopic therapy.

Ayurvedic perspective

The pancreas, also known as Agnashaya is known as place of Agni. Pitta can be considered as "Agni"^[5] 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. Pancreatitis in the initial phase is Vata-Pitta aggravation in Ras dhatu situated in Agnashaya. There is Dhatu kshay (degenerative changes) chronic state in Agnashaya. According to Ayurveda disturbed function of Agni is considered as the root cause of the all diseases. A poor diet and unsupportive life style can easily hinder the function of the Agni.

So Chronic calcific pancreatitis can be compared with Agnashaya vikrutijanya Grahani Vikar. Utilizing the basic concepts of Ayurveda (Nidanpanchak), Jirna Jwarahara, Vata-Pitta Shamak Rasa-shaodhak, Yakrutottejak, Pramehaghna or pancreatic-protective, Mrudu Virechak, Bruhana (Shamana & Bruhana Snehapana), Rasayan Chikitsa were considered as a treatment according to Patient's Prakruti, Agni and Bala.

Pathophysiology in Ayurveda

1. **Agnimandya:** Weak or imbalanced Agni results in incomplete digestion and the accumulation of Ama.
2. **Dosha imbalance:** Vat-Pitta dosha becomes vitiated due to dietary and life style factors, leading to an inflammatory response.
3. **Strotas obstruction:** Ama accumulates in the Annavaha strotas, obstructing the flow of nutrients and enzymes.
4. **Systemic Manifestation:** Imbalance in Dosha's spreads to other system causing pain, malabsorption and metabolic disturbances.

AIM OF STUDY

To study the efficacy of Ayurvedic management in chronic calcific pancreatitis.

MATERIAL AND METHODS

It is a single case study of 20 years old girl from Delhi, who was presented herself predominantly with pain in the epi-gastric region (recurrent attacks-especially after

intake of the fatty or heavy meal), tenderness in the epi-gastric area, loss of appetite, fever on and off, general malaise, loss of weight, constipation (intermittent), anxious & uncomfortable mental irritation since 3.5 years. After taking conservative treatment from modern medicine did not get satisfactory relief, advised of surgery ERCP. However, the patient & her relatives was not willing to undergo the same that's they approached at Ayurvishwa Ayurveda & Panchakarma clinic at pune.

A CASE REPORT

A 20-year-old female patient a known case of chronic pancreatitis for the last 3.5 years visited to clinic with her parents on 25/11/2024 with complains of unbearable pain in the abdomen which radiates to back during pain attacks needs hospitalization on emergency basis and intermittent dull pain in abdomen, indigestion, decreased appetite, burning sensation in the chest, nausea and constipation since 2 month with increased in symptoms. So, she visited to our clinic for better treatment.

Past History	: No H/o HTN/DM/Asthma, H/o CCP with calculi since 3.5 years.
Surgical History	: No H/o of any surgery.
Treatment History	: Patient took intravenous analgesic and antibiotics during hospitalization.
Family History	: All family members are healthy and No H/o severe illness.
Menstrual History	: Menarche at the age of 14 years. Regular period, painful with scanty bleeding.
Per Abdomen	: Slightly distended abdomen+ Tenderness in epigastria region ++ Muscle gourd & rigidity in the epigastric region was present
On Palpation	: No rebound Tenderness Fluid thrill absent Murphy's sign –Negative No organomegaly, No free fluid Her other system examinations revealed no abnormality
On percussion	: A tympanitic note was present Shifting dullness absent
On Auscultation	: Bowel sound present +

Table no. 1: Showing personal history.

General appearance:	Pallor, Afebrile	Mala: once in a 3 days, constipation	Druk: Avishesh
Addiction: Nil		Jivha:Saam	Aakruti: Krushaa
Nadi:74/min		Shabdha: Spashta	Bala: Avar
Mutra:5-6times/day		Sparsha:Anushnasheet	Raktabhara:110/80 mm of Hg
Weight: 40 kg		Prakruti: Pitta-Vata	Diet: Mix

Table no. 2: Showing Duration and Severity of Symptoms.

Sr. No.	Symptoms	Severity	Duration
1.	Recurrent episodes of pain in abdomen (Recurrent attacks-especially after intake of the fatty or heavy meal)	4+ (constant dull pain present daily but during attacks was unbearable)	Since 2 month increased in symptoms Total duration-3.5 years
2.	Tenderness over the epigastric region	2+	
3.	Loss of appetite	3+	
4.	Nausea and Vomiting	3+	
5.	General malaise	2+	
6.	Loss of weight	3+	
7.	Mental irritation	3+	

Investigation done (11/11/2024) CT Abdomen

Impression-Findings are suggestive of chronic calcific pancreatitis with multiple intraductal calculi in head region and diffusely dilated main pancreatic duct. Gall bladder sludge.

Blood Test (20/06/2025) - Serum Creatinine- 0.63 mg/dl.

Table no. 3: Treatment plan of Shamana chikitsa for further Six months.

Sr. No.	Medication	Dose	Anupam	Time of administration
1.	Mauktik Kamdudha	2-2-2	Luke warm water	After food
2.	Laghu Sutsheshekhhar	2-2-2	Luke warm water	Before food
3.	Praval Panchamrut	2-2-2	Luke warm water	After food
4.	Suvarna Sutashekhar	1-1-1	Luke warm water	After food
5.	Shatavari Kalpa	1 tsp	Luke warm milk	Morning

After one month added Aaragvadha kapila vati 0-0-1 after food.

Treatment of chronic pancreatitis also depends on diet and lifestyle.

Pathya & Apathya Aahar is also important in the treatment. Small frequent meals, avoid day sleep just after food intake are advised that are easier to digest, reduce pain, avoid a recurrence, and maintain normal blood sugar levels. Abstinence from fried food, bakery products & outside food are important in helping to prevent steatorrhea and pain. Low-glycemic foods such as whole grains, leafy green vegetables, and lean protein are suggested to consume that allows the pancreas to release insulin solely and steadily, putting less strain on the organ, and helping to prevent diabetes.^[6]

The adopted yoga and meditation helped to manage the symptoms, prevent a recurrence, improve the overall quality of life, and enhance the recovery process.^[7]

FOLLOW-UP AND OUTCOME

The patient's follow-up taken on call on the 5th, 14th, 21st, and 42nd days for clinical assessment. On day 5th relief in pain abdomen was noted, on 14th day reduced tenderness and improved appetite. On the 21st day major relief of symptoms. On the 42nd day the patient showed mild dull pain in abdomen with no major attack, which previously present.





After that follow-up taken every month up to 6 months. Observations noted given in below table.

Table no. 4: Assessment of Symptoms before and after treatment.

Sr. No.	Symptoms	Before	After
1.	Constant dull pain in upper abdomen and discomfort	4+	0
2.	Tenderness over the epigastric region	2+	0
3.	Loss of appetite	3+	0
4.	Nausea and Vomiting	3+	0
5.	General malaise	2+	0
6.	Loss of weight	3+	1+
7.	Mental irritation	3+	0

Table no. 5: Investigation report of CT (Abdomen) Before and After treatment.

On Dated- 11/11/2024	Pancreas shows mild diffuse parenchyma atrophy with dilated main pancreatic duct in entire course with caliber Of 8mm. Multiple calcific radio-opaque calculi are seen within main pancreatic duct in head region with the largest measuring 15*7mm . Findings are suggestive of Chronic calcific pancreatitis with multiple intraductal calculi in head region and diffusely dilated main pancreatic duct Gall bladder sludge.
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 DR. M. B. JAIN'S IMAGING & PATHOLOGY (P) LTD. AN ISO : 9001:2015 CERTIFIED		2/81-A/1, Near Khandari Crossing Hanuman Mandir, KHANDARI ROAD, AGRA-282002 24 Hours Helpline No.: 9068055666 Ph.: 9068053555, 0562-4055666, 4056555		
Date: 11/11/2024 Patient ID: 102423334 Name: [REDACTED] Ref. By: [REDACTED]		Collected On: [REDACTED] Age: 20 Yrs Sex: Female Printed On: 11/11/2024 19:11:36 Sample: [REDACTED]		
<p>Aorta, IVC, celiac, splenic & mesenteric vessels show normal enhancement.</p> <p>No retroperitoneal or mesenteric lymphadenopathy is noted. There is no pelvic lymphadenopathy.</p> <p>No free fluid is seen in the peritoneal cavity. There is no pelvic ascites.</p> <p>Abdominal wall musculature and fat planes appear normal.</p> <p>Pelvic musculature and vasculature appear normal.</p> <p>Visualised spine appears normal.</p> <p>Visualised basal lungs do not reveal any focal parenchymal lesion.</p> <p>IMPRESSION:-</p> <p>Ø FINDINGS ARE SUGGESTIVE OF CHRONIC CALCIFIC PANCREATITIS WITH MULTIPLE INTRADUCTAL CALCULI IN HEAD REGION AND DIFFUSELY DILATED MAIN PANCREATIC DUCT.</p> <p>Ø GALL BLADDER SLUDGE.</p> <p><i>Kindly correlate clinically.</i></p> <p>*** End of Report ***</p>				
On Dated- 20/06/2025	Pancreas shows mild diffuse parenchyma atrophy with prominence of main pancreatic duct in entire course with caliber of 3.9 mm. No obvious calcific radio-opaque calculi are seen. Follow-up case of Chronic calcific pancreatitis with no intraductal calculi in head region of main pancreatic duct (as compared to previous CT scan) Minimal pelvic free fluid.			
 DR. M. B. JAIN'S IMAGING & PATHOLOGY (P) LTD. AN ISO : 9001:2015 CERTIFIED		2/81-A/1, Near Khandari Crossing Hanuman Mandir, KHANDARI ROAD, AGRA-282002 24 Hours Helpline No.: 9068055666 Ph.: 9068053555, 0562-4055666, 4056555		
Date: 20/06/2025 Patient ID: 10258041 Name: [REDACTED] Ref. By: DR SHISHIR SURYAKANT PARATANE (M.D)		Collected On: 20/06/2025 12:37:22 Age: 20 Yrs Sex: Female Printed On: 20/06/2025 19:08:59 Sample: SERUM		
<p>Urinary bladder is well distended. Wall thickness is normal. No evidence of calculus is noted.</p> <p>Uterus is normal in size, shape and reveals homogeneous myometrial enhancement.</p> <p>Both ovaries are normal in size and attenuation. No adnexal mass lesion is noted.</p> <p>Aorta, IVC, celiac, splenic & mesenteric vessels show normal enhancement.</p> <p>No retroperitoneal or mesenteric lymphadenopathy is noted. There is no pelvic lymphadenopathy.</p> <p>Abdominal wall musculature and fat planes appear normal. Pelvic musculature and vasculature appears normal.</p> <p>Visualised spine appears normal.</p> <p>Visualised basal lungs do not reveal any focal parenchymal lesion.</p> <p>IMPRESSION:-</p> <ul style="list-style-type: none"> Follow up case of chronic calcific pancreatitis with no intraductal calculi in prominent main pancreatic duct (as compared with previous CT scan dated 15/02/2025, no obvious intraductal calculi are seen in main pancreatic duct). Minimal pelvic free fluid. <p>*** End of Report ***</p>				

DISCUSSION

The basic cause in the Pathophysiology of this condition is an imbalance between Vata & Pitta Dosha. Especially Pachaka Pitta & Saman Vayu (bile, pancreatic juice, and intestinal secretions) are considered the main Dooshya in its pathology. The vitiation of both these may be carried out due to the aggravation of Tikshna and Ushna Guna of Pitta due to food habits with the same kind of nature. Ushna Tikshna Vriddhi Ahara & Vihara, which lead to Paka Karma in Grahani (as it is the prime site of Agni)

due to Pitta Prakopa, i.e. disturbances in pancreatic enzymes, e.g., trypsin and chymotrypsin.^[8]

Such ill and inflamed part of the pancreas leads to first phase Pancreatitis & results in aggravation of Rasa Dhatu (Digestive fluids) found in the pancreas, which later turns into specific degenerative changes in the pancreas due to Chronicity.^[9] Due to such degenerative changes, the endocrinal part of the pancreas that produces several important hormones, including insulin,

glucagon, somatostatin, and pancreatic polypeptides, is necrosed. Ultimately, the homeostasis of blood glucose, the control of upper Gastrointestinal (GI) motility and function, and its exocrine part also get hampered, leading to impairment of digestion of carbohydrates, proteins, and lipids.

Utilizing the basic concepts of Ayurveda (Nidanpanchak), Jirna Jwarahara, Vata-Pitta Shamak Rasa-shodhak, Yakrutottejak, Pramehaghna or pancreatic-protective, Mrudu Virechak, Bruhana (Shamana & Bruhana Snehapana), Rasayan Chikitsa effectively planned in this case.

Probable Mode of Action of the Drug

- 1) **Mauktik Kamdudha:-** Main content-Praval bhasma, Mukta pisti, Shouktik bhasma, Kapardik bhasma, Shankha bhasma, Sudha Suvarna Gairik bhasma, Guduchi bhasma.^[10]
 - Tridosha-shamak mainly Pitta shamak
 - Agnimandiyahar (Deepan, Pachan)
 - Aampachana
 - Jwaraghna, Daha shamak, Rakta prasadak, Rasayana properties.
- 2) **Laghu Sutsheshekhhar:-** Main content- Shudha Swarna Gairik, Shunthi, Nagvelli as bhavana dravya.^[11]
 - Pitta-shamak, Vata-shamak.
 - Ruchya(stimulates taste).
 - Deepan, Bhedan, Amapachak.
 - Shoth-kledahar (Anti-inflammatory), Chardihar (Anti-emetic).
 - Amliapittahar(Anta-acid), Blood purifier (Rakta-prasadak).
- 3) **Praval Panchamrut:-** Main content-Mukta, Shankha, Shukti, Kapardik, Praval, Arka ksheer.^[12]
 - Vata-Pitta shamak.
 - Agnimandiyahar (Deepan, Pachan).
 - Aampachana.
 - Ashmarihar, Ras-Rakta Pachaka.
- 4) **Suvarna Sutashekhar:-** Main content- Raupya bhasma, Suvarna bhasma, Kajjali, Tamra bhasma, Shankha bhasma and herbs like shunthi, marich, pippali, twak, ela etc & Bhrungraj swaras.^[13]
 - Chardihar, Shoolahar, Balya, Hridya
 - Vata-Pitta shamak
 - Aampachana
 - Agnimandiyahar (Deepan, Pachan)
 - Medhya, Rasayana, Nerve-Tonic
 - Anxiolytic, Oja-vrudhikara, Bruhana
 - Immuno-modulator
- 5) **Shataravi kalpa:-** Main content- Shatavari, Elaichi, Sharkara.^[14]
 - Anti-inflammatory, Anti-oxidant
 - Carminative
 - Deepan, Pachan, Rochana, Anulomana

- Rasayana, Balya, Vaysthapan
- Jwaraghna
- Dahahar, Pramehghna, Panduhar
- Medhya

- 6) **Aaragvadha kapila vati:-** Main content-Aaragvadha magaj, kapila^[15]
 - Vata-Pitta shamak
 - Ruchikara
 - Rechaka, Anulomana
 - Raktapitta shamak
 - Yakrut-Uttejak
 - Vedanasthapak, Shoth hara
 - Dahaprashaman

CONCLUSION

In Ayurveda, Nidana Parivarjan (Avoidance of Causative Factors) is considered as first line of treatment for any disease & by using of Shamana chikitsa to balance the vitiated Dosha in general and Pitta Dosha in particular in this case treated successfully. After six month of regular treatment results shows that there were no intraductal calculi in head region of main pancreatic duct.

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