

# Management of *Grahani Roga* (Acute Pancreatitis) by Ayurvedic Modalities: A Case Report

SONALI BALU SAHANE<sup>1</sup>, RENU BHARAT RATHI<sup>2</sup>, PAVAN NAVKARKAR<sup>3</sup>, SHRISH JAISHWAL<sup>4</sup>

## ABSTRACT

Acute pancreatitis is one of the most critical health conditions in the paediatric age group. A one-to-one correlation of pancreatitis is not found in Ayurveda classics; however, it can be considered under *Grahani Roga*. Hereby, the authors present a case report of a five-year-old male patient complaining of recurring pain in the epigastric and left hypochondriac regions, referred to the back, along with nausea and severe projectile vomiting. The patient was diagnosed just five days ago with *Grahani Roga* (acute pancreatitis) using ultrasonography and laboratory findings, and he approached the *Kaumarbhritya* (Paediatric) Outpatient Department (OPD) for management. Considering the severity of the disease and the condition of the patient, Ayurvedic *Shamana* and *Shodhana Chikitsa* were initiated. *Grahani Roga* (acute pancreatitis) is classified as a *Pittaj Vikara*. *Virechana* is the best treatment modality for *Pittaj Vikara*; hence, in this patient, *Mridu Virechana* (mild purgation) using *Avipattikar Churna* was administered. Due to the extreme pain in the patient, which is associated with *Vata Dosha* vitiation, *Matra Basti* with *Til Taila* was started. Alongside this, *Shamana Aushadhi* was initiated, which included *Sankh Vati*, *Aamlaki Churna*, and *Yashtimadhu Churna* as *Rasayana* drugs. After eight days of treatment, improvement was observed in symptoms such as abdominal pain and nausea. *Shamana* and *Shodhana Chikitsa* were continued for 21 days, resulting in significant improvement in overall symptoms. No recurrence had been observed until the sixth month of follow-up.

**Keywords:** Child *shodhana*, Epigstric discomfort, Nausea, *Shamana chikitsa*, Vomiting

## CASE REPORT

A five-year-old male child visited the *Kaumarbhritya* (Paediatric) with the chief complaints of intermittent, severe, sharp pain in the epigastric and left hypochondriac regions, radiating to the back for the past 10 days. He had experienced nausea for the last four days, intermittent projectile vomiting, fever, and loss of appetite, along with sleeplessness for the past two days. He was diagnosed with *Grahani Roga* (Acute Pancreatitis) using ultrasonography and laboratory findings.

Ten days ago, the patient was apparently healthy, but he suddenly started experiencing abdominal pain, nausea, vomiting, discomfort, and anorexia. He commenced allopathic treatment with antibiotics, antacids, and supportive care (Nil per Os-nothing by mouth, and intravenous fluid hydration). He was provided with inj. Monocef 750 mg i.v for three days, inj. Tramadol 35 mg in a drip of 50 mL with normal saline intravenously twice a day for three days, inj. Paracetamol 150 mg intravenously as needed, syrup Ibugesic 8 mL orally as needed for three days, and syrup Rantac 5 mL orally twice a day for three days. He experienced some symptomatic relief from this treatment but stopped in the middle. His parents were not satisfied with the ongoing treatment, so they turned to Ayurveda modalities.

There was no history of diabetes mellitus/insipidus, hypertension, bronchial asthma, or hypothyroidism. There were no major illnesses in the family, except for constipation. Abdominal examination revealed notable tenderness to palpation, guarding, with no signs of peritoneal irritation, distention, or rigidity, and decreased bowel sounds. Seven days before admission, he presented with significant aggregation of symptoms, including severe continuous epigastric pain, nausea, and severe persistent projectile vomiting (5-6 episodes). He had a recent travel history. He had no history of hepatic disease, gallstones, or a family history of pancreatitis. Additionally, there is no history of trauma or surgery.

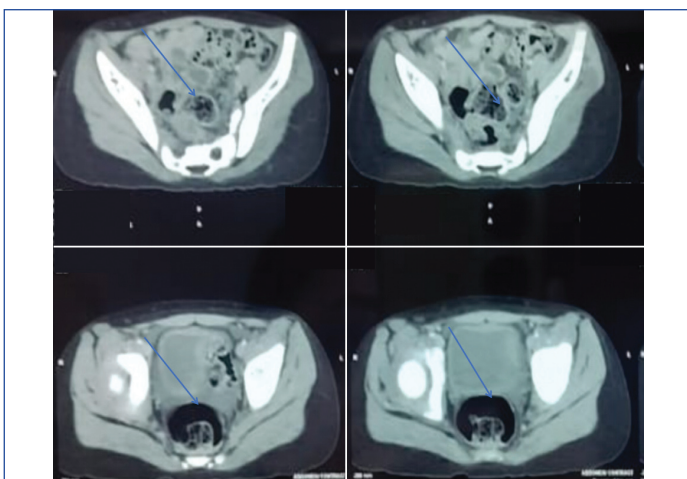
His personal history reveals a habit of frequently consuming packaged and fast foods, leading to constipation, irregular bowel movements with hard stools, and disturbed sleep. Physical examination findings

showed mild abdominal tenderness and mild distention. His pulse was 80 beats per minute, respiratory rate 25 breaths per minute, and blood pressure was 100/60 mmHg. His weight was 16 kg, height was 106 cm, which is appropriate for his age and sex.

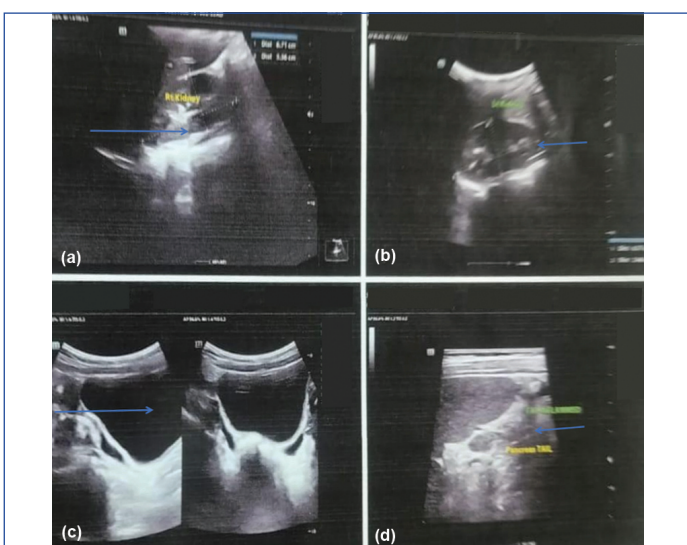
There was a significant increase in the laboratory values of serum amylase, serum lipase, serum alkaline phosphate, and aspartate aminotransferase. These are common biochemical markers in patients with acute pancreatitis [Table/Fig-1]. Contrast-enhanced Computed Tomography (CECT) revealed that the pancreas was minimally bulky in the body and tail regions, with a normal echo texture. There was a focal area of fat inflammation in the left lumbar region adjacent to the tail of the pancreas, suggesting acute pancreatitis [Table/Fig-2]. An abdominal ultrasound revealed an enlarged, heterogeneous pancreas with anterior bending and an irregular surface, encircled by peripancreatic fluid, as well as dilated pancreatic and common bile ducts. Several gallstones, each measuring an average of 6-7 mm, were also noted [Table/Fig-3a-d].

Laboratory test	Values	Reference range	Lab values after 21 days
Serum amylase (U/L)	1724	20-110	37
Serum lipase (U/L)	1200	<200	64
Serum triglycerides (mg/dL)	155	<150	-
Serum alkaline phosphate (IU/L)	278	64-300	-
Neutrophils (%)	78.6	60%	-
Total bilirubin (mg/dL)	2.0	0.1-1.2	-
Direct bilirubin (mg/dL)	1.1	0.3	-
Aspartate aminotransferase (U/L)	178	8-33	10
Haemoglobin (mg/dL)	11.5	13.2-16	-
Alanine aspartate aminotransferase (ALT) (IU/L)	666	7-35	28
Serum calcium (mg/dL)	8.1	9.0-10.8	-
Serum albumin (g/dL)	3.6	3.5-5.0	-

**[Table/Fig-1]:** Laboratory investigations.



[Table/Fig-2]: Showing Contrast-enhanced Computerised Tomography (CECT).



[Table/Fig-3]: Ultrasonography of abdomen and pelvis.

Differentiating between acute pancreatitis and other conditions like acute ulcer disease, cholangitis, cholecystitis, biliary colic, and duodenal ulcer can be challenging, as these conditions can present with similar symptoms. Acute pancreatitis was differentiated from other conditions by using typical clinical features, diagnostic criteria, and the Atlanta criteria. The diagnosis of pancreatitis was confirmed by meeting all three of the Atlanta criteria: the presence of symptoms consistent with pancreatitis (such as gastric pain), elevated serum amylase levels (three times above the normal value), and radiological features indicative of acute pancreatitis, as observed in the abdominal ultrasound [1].

## Management

Management was divided into two parts: *Shodhana Chikitsa* and *Shamana Chikitsa*, along with dietary modification [Table/Fig-4,5]. The *Shodhana* plan involved the use of *Matrabasti* for *Shodhana*

No.	Aushadi (internal medicine)	Dose and duration	Time	Annupana
1	<i>Avipattikar Choorna</i>	1 gm continued for 21 days	After meal at night	Lukewarm water
2	<i>Sutshekhar Rasa</i>	250 mg for 21 days	BD 1/2 hr before meal	Lukewarm water
3	<i>Amlaki Choorna</i>	1 gm daily for 21 days	OD 1/2 hrs Breakfast	Honey or water
4	<i>Shankhvat</i>	250 mg for 21 days	BD after meal	Lukewarm water
5	<i>Yashtimadhu Choorna</i>	1 gm for 21 days	BD after meal	<i>Takra</i>
6	Tab. Mentocalm	1 tab BD for 21 days	After meal	Water

[Table/Fig-4]: Details of *Shamana* and *Shodhana chikitsa*.

treatment. *Matrabasti* (100 mL) was administered with Dashmool oil after meals daily for eight days. The patient approached the Department with complaints of epigastric pain, nausea, and vomiting, and was diagnosed with acute pancreatitis. He was treated with *Shodhana* and *Shamana Chikitsa*.

Types	Pathya (Do's)	Apathya (Don't)
Cereals	Old shali rice	Wheat
Pulses	Green gram ( <i>mudga</i> ), Pigeon pea, <i>masura</i>	Peas ( <i>matara</i> )
Fruits and vegetables	Water chestnut ( <i>singhada</i> ) banana, jambo ( <i>jambu</i> )	Garlic ( <i>Lahasuna</i> )
Other	Without cream curd, goats milk, clarified butter, sesame oil	Betel nut, sour vinegar ( <i>kanji</i> ) jaggery, sour food
	Honey, soup ( <i>yusa</i> ), butter milk, cumin, coriander	Spicy food
Life style	Therapeutic emesis ( <i>vaman</i> )	Night awakening, suppression of natural urges, physical exercise

[Table/Fig-5]: *Pathya/Apathya* (Do's and Don't).

After 7-8 days of treatment, the patient started responding and the symptoms gradually decreased. After a complete 21 days of treatment, there was a significant reduction in laboratory values: serum amylase was 37 U/L, serum lipase was 64 U/L, serum aminotransferase was 10 U/L, and Alanine Aspartate Aminotransferase (ALT) was 28 IU/DL. On follow-up after 21 days, the patient was completely cured of all symptoms, and no recurrence was observed. After three months of follow-up, the parents expressed high satisfaction with the treatment provided, with no adverse effects observed.

## DISCUSSION

Pancreatitis is a condition where inflammation of the pancreas leads to severe abdominal pain, nausea, vomiting, fever, and anorexia. The severity of symptoms not only disturbs the overall quality of life but also affects the parents of the patient. This patient experienced episodes of recurrent abdominal pain. The diagnosis was confirmed as *Grahani Roga* (Acute Pancreatitis) through radiological and laboratory investigations. Pancreatitis is primarily an inflammatory condition. *Grahani Roga* falls under *Pittaj Vikara*.

The *Samprapti Ghataka Vighatana* (breaking the aetiopathogenesis) was taken into consideration, and a plan for *Mrudu Virechana* (mild purgation) using *Avipattikar Churna* was established. *Mrudu Virechana* pacifies the vitiated *Pitta*, making it effective for this patient [2]. The principles of treatment include *Mrudu Virechana* (mild purgation) and the use of formulations that are hepatostimulant (*Yakrutottejaka*) and pancreatic-protecting (*Pramehaaghna*) [3].

*Grahani Roga* is a common Gastrointestinal (GI) tract disorder that negatively impacts day-to-day functioning. The primary functional component of *Mahasrota*, situated between *Amashaya* (stomach) and *Pakwashaya* (large intestine), is called *Grahani*. It is also referred to as the *Pittadhara Kala*, where *Jatharagni* (digestive fire) resides. Its primary role is to retain the *ahara* (food) until the end of *Avasthapaka* (digested food) and then transfer it to *Pakwashaya* (large intestine) [4].

The pathophysiology of pancreatitis can be linked to *Vataja Grahani Dosha*. Considering the prominence of *Dhatu* and *Dosha* (body tissue), the main goals of therapy were to control the signs, protect the pancreatic structure and function from further alterations, and return the biochemical values to normal [5].

## Action of Internal Medicine

**Avipattikar Choorna:** In clinical practice, *Grahani* disease is a commonly seen condition. The primary pathogenic mechanism behind the emergence of this disease is believed to be the excess formation of vitiated *Pitta* (*Pitta Drava Guna Vridhi*) as a result of inappropriate food and lifestyle behaviours [6]. For its efficient

administration, traditional Ayurvedic formulations like *Avipattikar Choorna* and *Sutasekhar Rasa* are frequently administered in combination. For the treatment of *Urdhwaga Amlapitta*, *Avipattikar Choorna* and *Sutasekhar Rasa* work incredibly well together, and there are no adverse effects from either medication. Additionally, patients who adhere to the *Pathya* (recommended regimen) and avoid the *Apathya* (prohibited foods and behaviours) recover more quickly and have a lower likelihood of recurrence [7].

**Sutasekhar Rasa:** Ayurvedic practitioners employ *Sutasekhar Rasa*, a formulation that is useful in treating conditions such as hyperacidity in *Amlapitta*, digestive impairment in *Agnimandya*, diarrhoea in *Atisara*, abdominal lumps in *Gulma*, cough in *Kasa*, malabsorption syndrome in *Grahani*, and tuberculosis in *Rajayakshma*. In the literature, there are four different formulations with the same name and one *Laghu Sutasekhar Rasa*. Of all these, the *Sutasekhar Rasa*, as described in *Yoga Ratnakara*, is well-known and has been used in medicine and trade [8].

**Amalaki Choorna:** Fruit extracts from *E. officinalis* have been shown to have strong immunomodulatory effects. *Amalaki* has demonstrated mild cytoprotective efficacy as well as immunostimulant action. Nevertheless, *Amalaki Choorna* and *Amalaki Swaras* must be triturated in order to obtain the desired pharmacological activity [9].

**Shankh Vati:** A well-known traditional Ayurvedic medicine called *Shankh Vati* is frequently used to treat a variety of ailments, including stomach pain, constipation, haemorrhoids, acid reflux disease, and hyperacidity caused by digestive problems [10]. There are fifteen variations of *Shankh Vati* that can be found in various Ayurvedic texts. The variations share the same ingredients: *Shankha Bhasma*, *Hingu*, *Vatsanabha*, *Trikatu*, *Kshara*, and *Lavana*, best for gastric pain management [11].

*Yashtimadhu Choorna*, derived from *Yashtimadhu* (*Glycyrrhiza Glabra*), is used in the treatment of chronic acidity, ulcers, and chronic bronchial conditions. *Yashtimadhu* is known to balance both *Vata* and *Pitta doshas*. Studies conducted on modern scientific parameters have proven the healing, anti-inflammatory, and anti-ulcer properties of *Yashtimadhu* [12].

**Takra:** Based on the systems and areas of the Gastrointestinal (GI) system affected, GI diseases can be classified as Functional Gastrointestinal Disorders (FGIDs) in the absence of an organic cause. Probiotics, often referred to as “good” or “helpful” bacteria, support gut health. Probiotics have been thoroughly researched in relation to GI illnesses such as antibiotic-associated diarrhoea and infectious gastroenteritis. *Takra* can be regarded as an ayurvedic probiotic as it is fermented and has been used for generations in treating conditions like *Grahani*. According to thorough studies, *Takra* offers several advantages, particularly in boosting beneficial bacteria in the GI tract, which in turn reduces harmful bacteria and is crucial for maintaining tract health. Including *Takra* in regular meals supports intestinal immunity and helps prevent GI illnesses [13,14].

*Sutshekhar Rasa* is considered the best *Pittashamaka* medicine in Ayurveda. *Matrabasti* with *til taila* acts as *Vatashamana*. Pain is

mostly associated with *Vata Dosha*, so the use of *Matrabasti* has been found to be effective. *Sankh Vati* is effective in alleviating abdominal pain due to its *Ushna Guna*. *Amlaki Churna* and *Yashtimadhu Churna* are used as *Rasayana* drugs. *Yashtimadhu Churna* is an excellent *Ropak dravya*, and its healing properties help reduce inflammatory conditions and alleviate pain.

## CONCLUSION(S)

*Virechana* (purgation) played a crucial role in the management of *Grahani Roga* (Acute Pancreatitis). *Shamana Aushadhi*, along with *Pathya* and *Apathya* according to *Dosha-Dushya samurshana*, was effective in treating the patient. From present case study, it can be concluded that *Grahani Roga* (Acute Pancreatitis) was effectively managed by *Virechana* as *shodhana chikitsa* and *Shamana Chikitsa*, along with *Pathya* and *Apathya*, without any complications or side effects. No adverse drug reactions were observed, and the patient was satisfied with the treatment.

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### PARTICULARS OF CONTRIBUTORS:

1. Postgraduate Scholar, Department of Paediatrics, Mahatma Gandhi Ayurved College, Hospital and Research Centre, Salod, Wardha, Maharashtra, India.
2. Professor and Head, Department of Paediatrics, Mahatma Gandhi Ayurved College, Hospital and Research Centre, Salod, Wardha, Maharashtra, India.
3. Postgraduate Scholar, Department of Paediatrics, Mahatma Gandhi Ayurved College, Hospital and Research Centre, Salod, Wardha, Maharashtra, India.
4. Postgraduate Scholar, Department of Paediatrics, Mahatma Gandhi Ayurved College, Hospital and Research Centre, Salod, Wardha, Maharashtra, India.

### NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Sonali Balu Sahane,  
At-post Sakur Phata, Taluka Igatpuri, Dist. Nashik, Wardha-422502, Maharashtra, India.  
E-mail: [renu.rathi@dmir.edu.in](mailto:renu.rathi@dmir.edu.in)

### AUTHOR DECLARATION:

- Financial or Other Competing Interests: None
- Was informed consent obtained from the subjects involved in the study? Yes
- For any images presented appropriate consent has been obtained from the subjects. Yes

### PLAGIARISM CHECKING METHODS: [Jain H et al.]

- Plagiarism X-checker: May 13, 2024
- Manual Googling: Aug 28, 2024
- iThenticate Software: Sep 05, 2024 (8%)

### ETYMOLOGY: Author Origin

EMENDATIONS: 7

Date of Submission: May 09, 2024

Date of Peer Review: Jul 25, 2024

Date of Acceptance: Sep 07, 2024

Date of Publishing: Jan 01, 2025