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**Review Article** 

# ROLE OF AYURVEDA MODALITIES IN THE MANAGEMENT OF *PARINAM SHOOL* (PEPTIC ULCER DISEASE)

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# \_\_\_\_ ABSTRACT

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#### **KEYWORDS:**

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Parinama shoola, Annadrava shoola, Acid Peptic Disorders, Peptic ulcer disease. One of India's oldest and most well-established medical systems is Ayurveda. The basic goal of Ayurveda is "to preserve health and to heal the sick one." People are more susceptible to illnesses because of changing dietary practices, a hectic lifestyle, Dinacharya, Ritucharya, etc. The disorders that are most upsetting are Annadrava shoola and Parinama shoola, while many different diseases have been discussed in the context of Annavaha Srotas. The most frequent cause of GIT illnesses today is changed eating habits. One of them is a peptic ulcer. It is a kind of acid gastritis in which the stomach wall becomes ulcerated as a result of an excessive quantity of HCL. Due to their comparable symptoms, Annadravashoola and Parinamashoola can both be referred to as peptic ulcer disease. Madhava Nidana is the first to explain a specific chapter pertaining to *Shoola*, while Maharishi Sushruta is the first to define many varieties of Shoola in Uttara-tantra. He divided Shoola into 8 categories; two other categories, Annadravashoola and Parinama shoola, were left out. The defining characteristics of Annadravashoola include discomfort prior to, during, and following vomiting, a burning feeling in the epigastrium, belching, etc., as well as Parinama shoola, which develops after food has been digested. Because their symptoms are similar, peptic ulcer illness can be used to refer to both Parinama shoola and Annadravashoola as a single entity.

# **INTRODUCTION**

The digestive system is one of the biological systems that has been negatively impacted by the fast-paced, stressful, and busy modern world (*Annavaha Srotas*). The term "*Annavaha Srotas*" refers to the path taken by food during transportation. The *Annavaha-Srotas* (alimentary canal) is involved in the following processes: *Anna Adana* (food intake), *Anna Pachana* (digestion), Sara *Kitta Vivechana* (separation of nutrient and waste component), and *Rasa Shoshana* (nutrient absorption). According to Ayurveda, *Dehagni* is in charge of life, appearance, strength, health, *Oja, Teja*, and *Prana*. 1 *Ama* occurs from any discord at any level of the *Annavaha Srotas* or the *Dehagni*.<sup>[1]</sup>



Ajeerna, Ama-Visha creation, Annadrava shoola, and Parinama shoola are the next stages of the digestive process that are triggered by an intermediate product that is produced as a result of the digestive fire's disturbed metabolism. According to contemporary research, peptic and duodenal ulcers are associated to Annadrava and Parinama shoola, respectively. The phrase "Parinama shoola" refers to abdominal colic, also known as Shoola, which occurs during food digestion, or about three to four hours after ingestion, after food has entered the intestines. The Acharya Madhav Nidana referred to Parinama shoola as an "Avarana Janya, Tridoshaja Vyadhi" and Annadrava shoola as a sort of Shoola with the distinguishing characteristics of discomfort before and throughout food digestion and that relieves after vomiting.<sup>[2]</sup>

The cause of *Annadravashoola* is explained as *Vata Prakopa*, in which the aggrieved *Vata dosha* surrounds nearby *Pitta* and *Kapha doshas* in the *Koshtha* and becomes potent enough to produce colic pain during the digestion of ingested food. *Kapha* then

breaks down from its own location and interacts with *Pitta* and *Vata* to cause colic pain during the transformation of the consumed food. <sup>[3]</sup> This typical *Shoola* or colic is known.

# Modern Concept of Peptic-Ulcer Disease (PUD)

Peptic Ulcer Disease (PUD) is characterized by burning sensation in the epigastric area that is worsened by fasting and relieved by eating. An ulcer is defined as a local defect brought on by active inflammation that compromises the mucosal integrity of the stomach or duodenal wall. Usually chronic in nature, ulcers develop in the stomach or duodenum. 4 million people (new cases and recurrences) in the United States are affected with acid peptic illnesses each year, making them quite prevalent. In the United States, PUD affects 10% of women and 12% of men during their lifetimes.<sup>[4]</sup> These prevalent illnesses have had a significant financial impact, with an estimated burden on direct and indirect health care expenses of -\$10 billion annually in the United States.

Annadravashoola and Parinama shoola have been linked to peptic ulcer illness in current research. Numerous people suffer from peptic ulcers, which are the most prevalent gastrointestinal illnesses in clinical settings. It is widely acknowledged that abnormalities in the mucosal protective factors are what lead to ulcers. <sup>[5]</sup> Acid pepsin production, cellular renewal, mucous secretion, blood flow, mucosal barrier, prostaglandins, epidermal development, and Helicobacter pylori all play a role in its etiology. <sup>[6]</sup>

Additionally, it can be interpreted as an imbalance between the production of acid and the protective system of the stomach mucosa, including prostaglandin and bicarbonate. The lining of the stomach and duodenum, the top portion of the small intestine, become inflamed with ulcers. The parietal cell, sometimes referred to as the oxyntic cell, is often located at the isthmus, neck, or oxyntic gland at its apical end. The parietal cell is at rest or is not stimulated when it has prominent cytoplasmic tubulovesicles and intracellular canaliculi with short microvilli along the surface. H, K-ATPase is expressed in the tubule's membrane, and upon cell stimulation, this membrane along with apical canaliculi with long microvilli are present. At the apical canalicular surface, acid secretion-a membrane-based process transforms into a complex network of apical intracellular processes that need considerable energy. <sup>[7]</sup> Numerous mitochondria (30 to 40% of total cell volume) are crucial for the generation and management of HCL as well as the breakdown of mucus in the stomach lining.

They also provide the energy necessary for the secretion of stomach function. The oxyntic gland contains the acid-secreting parietal cell, which is close to other cellular components (ECL cell, D cell) crucial to the stomach secretory process. Additionally, this parietal cell secretes intrinsic factor (IF). The parietal cell contains receptors for gastrin (cholecystokinin B/gastrin receptor), histamine (H2), acetylcholine (muscarinic, M3), and other stimulants of acid production. When histamine binds to the H2 receptor, adenylate cyclase is activated and cyclic AMP is raised. <sup>[8]</sup> The protein kinase C/phosphoinositide signaling pathway is activated by the stimulation of the gastrin and muscarinic receptors. The acid-secreting pump is controlled by a variety of downstream kinase cascades, which are in turn regulated by each of these signaling pathways. The significant quantity of H is produced by the enzyme H+, K+-ATPase.<sup>[9]</sup>

Histamine, Gastrin (cholecystokinin B/gastrin receptors), and acetylcholine are three stimulants of acid secretion for which the parietal cell expresses receptors. Acetylcholine and other stimulants have a correlation with Vata, which is the aggressive element in PUD. The revelation that various ligands and their associated receptors cause the activation of various signaling pathways explains why histamine and gastrin or acetylcholine together potentiate acid production. In comparison to Pachak pitta, the two main stomach secretory products that might cause mucosal damage are HCl and pepsinogen. <sup>[10]</sup> The main contributions to basal acid productions include cholinergic input from the vagus nerve and histaminergic input from nearby stomach sources.

#### Aim & Objective of Study

To evaluate the concept of *Parinama Shoola* (Acid peptic Disease) and its Management

#### Methodology

The material related to *Parimana Shoola* has been collected from different articles, Authentic websites like (Pubmed, AYU, NCBI etc.), Authentic Textbooks, like Charak Samhita, Sushruta Samhita, Ashtanga Hrudaya, etc.

#### **Concept of Parinam Shoola**

The phrase "*Parinama shoola*" is selfexplanatory; it refers to abdominal colic that occurs during food digestion, or 3–4 hours after ingestion, when food has entered the intestines. An "*Avarana Janya, Tridoshaja Vyadhi*" is *Parinamashoola*. The *Vata* becomes excessively vitiated after ingesting or being exposed to the causes of *Vata* aggravation. These two *Doshas* then block this vitiated *Vayu* as a result of it mixing with morbid *Pitta* and *Kapha*. <sup>[7]</sup> *Vata* that is *Pitta-* and *Kapha-*mixed and obstructed leads to severe *Shoola*. It's known as *Parinama shoola*.

#### Nidana

Overexertion, late-night work that results in less sleep, an excessively dry or fat-free diet, irregular eating patterns, severe injuries that cause tension and concern, and all *Vata prakopaka* variables were cited as the cause.

# Pathogenesis of Parinama Shoola Samprapti of Parinama Shoola

Ruksha Anna (Yava, Suska Saka, Jangala Mamsa etc.), Vishamasana, Langhana

Aggravate Vayu followed by *Pitta and Kapha* 

Aggravated Vata decreases Pitta and Kapha

#### Samprapti Ghatak

- Dosha=Tridosha-samanvayu, Pachak pitta, Kledaka kapha
- Srotasaha=Annavaha
- Adhisthana= Aamasaya and Grahni
- Swabhava = Aasukari
- Sadhyaasadhyata= Sadhya

#### Symptoms of Parinama Shoola

- Bhukte Jeeryati Yat Shoolam Pain occurs during digestion of food
- Kukshi parshwa shoola Pain in abdomen
- Jatara parshwa shoola Pain in abdominal sides
- Nabhi Shoola -Navel Pain
- Vasti Shoola Pain in the region of urinary bladder
- *Staanatara Shoola* Pain in the sternal region
- Prishta mula Shoola Pain in the sacral region

# **Aggravating & Relieving Factors**

#### **Relieving Factors**

- Bhukta Matre -After intake of food
- Vanta Matre After vomiting

• *Jeerne cha anne* -After complete digestion of food Aggravating Factors

- *Shashtika Shali* Food cooked with rice grown in 60 days
- Vrihi dhanya -Barley etc.
- Shali odana Cooked rice

In another textbook, *Parinama Shoola* is stated in this way: When the *Shleshma* or *Kapha* is forced out of its position, it will mingle with *Pitta*. They are further displaced by the vitiated *Vayu*, which also makes digestion painful. The name of this is *Parinama Shoola*.

In the stomach, the *Shleshma* or *Kapha* 

becomes dislocated from its position. Later, this

dispersed Pitta becomes combined with Pitta. Pitta

and *Kapha* were further displaced by the vitiated *Vavu*,

which also produces excruciating agony as food is

being digested. The term for this is *Parinama Shoola*.

# Dosha Specific Symptoms of Parinama Shoola Vataja Parinama Shoola

- Adhmana Abdominal distension
- Atopa Gurgling sounds
- *Vin-mutra vibandha* -Constipation and urinary obstruction
- Arati -Non- specific pains
- Vepana -Tremors
- *Snidgha ushan Prashanama*-Gets pacified medicated ghee and oils and hot comforts

# Paittika Parimana Shoola

- Trishna Thirst
- Daha -Burning sensation
- Aruchi Tastelessness
- Sweda Excessive sweating
- *Katu -amla- lavanottaram* -Symptoms worsen when foods predominant with pungent, sour and salt tastes are consumed

#### Shlaishmika Parinama Shoola

- Chardi Vomiting
- Hrullasa Nausea
- *Moha* Indecisiveness
- Manda Shoola Mild pain
- Deergha Santati -Long standing pain
- *Katu tikta upashamana* -Symptoms are relieved by consumption of pungent and bitter foods

# Dwidoshaja Parinama Shoola

- Vata Pittaja Parinama Shoola Symptoms of Vataja and Pittaja Parinama Shoola manifested together
- *Vata Kaphaja Parinama Shoola* Symptoms of *Vataja* and *Kaphaja Parinama Shoola* manifested together
- *Pitta Kaphaja Parinama Shoola* Symptoms of *Pittaja* and *Kaphaja Parinama Shoola* manifested together
- Sannipataja Parinama Shoola Symptoms of vitiated of all the 3 Doshas will be present in Sannipataja or Tridoshaja Parinama Shoola

#### Prognosis

**Tridoshaja kinds of Parinama Shoola** - When all three *Doshas* are active, *Parinama Shoola* is said to be incurable. *Parinama Shoola* associated with *Upadravas*, however, is said to be incurable when there is a decrease or degeneration of *Bala, Mamsa*, and *Agni*.

#### Complications

- Anaha -Flatulence
- Guruta -Heaviness of the abdomen
- Chardi -Vomiting
- Bhrama -Giddiness
- Trishna Thirst
- Jwara Fever
- Aruchi Anorexia

# Role of Ayurveda Modalities in the Treatment of *Parinama Shoola*

# Langhana – Fasting

- This treatment is used to lower any unusually elevated body part and return it to normal level in order to preserve homeostasis. Indigestion, waste products of any kind, *Ama*-associated *Dosha* states, and abnormal *Dosha* build-up are all indicators. It is possible to recommend *Langhana* treatment with or without prescription drugs. (Chakrapani on the Cha. Sa. Sutra Sthana)
- It is becoming more and more common to use *Langhana* treatment to treat problems brought on by overeating. Exercise and fasting are the two most common types of *Langhana* treatment. In larger contexts, this article discusses many types of *Langhana* treatment.

#### Vamana - Medicated Emesis

• In *Kaphaja shoola*, the *Vamana* (emesis) technique is strongly recommended. However, it is also recommended in the management of *Vatika* and carried out by the use of various medications and fluids depending on the *Doshas* involved, i.e., *Katu rasa* medications are used for *Kapha dosha*  elimination and *Madhur rasa* medications for *Pitta dosha* removal. However, it is not advised in *Parshwa shoola*.

- *Ayurveda* have advised in *Paittika shoola* that the *Vaman* technique should be performed first, followed by cold sponging and cold bathing. One option for *Paittika shoola vamana karma* is (i) A paste made from *Nimba* and *Patola* sugarcane juice. (ii) Excessively drinking cold water. (iii) Excessively drinking cold milk or a cold water and sugar combination.
- Chakradatta stated in the *Kaphaja Shoola* that the *Vamana* technique should be used first, followed by *Langhana*, and then *Shirobirechana*. After *Vaman* and *Langhana*, Kasghyapa samhita recommended drinking any warm digestive beverage with *Kshara*. Later, the patient should have a *Panchakarma*-approved medicinal *Yavagu* or meal. *Vamana* (emesis) can be accomplished using (i) a warm solution of water and excess *Pippali* powder; (ii) a warm solution of water and excess *Sandhava* salt. Take the *Pippalyadi* decoction for worms that has been made with *Hing* (Asafoetida) or *Yavagu* afterwards.

# Virechana - Medicated Purgation

- Paittika shoola is one of the Doshika shoola for which the Virechana process (purgation) is most recommended, however it may also be employed in other cases. If discomfort increases after digestion, castor oil should be used for Virechana, according to Vagabhatta. Draksha should be used for purgation if there is discomfort during digestion. Any type of Triphala decoction, cow's urine, honey, milk, and castor oil in double amounts should be used for purgation in Shoola roga. In contrast, if Shoola is present prior to, during, or after digestion, Danti should be utilized.
- The *Paittika shoola* cure *Virechana* is significant. *Pitta*-relieving medications, such as the juice of *Danti, Trivritta, Ikshu,* and *Gandika,* can be used to execute the *Virechana* treatment, as can the combination of *Trivritta* powder and *Triphala* powder. The patient should have parched rice and honey, rabbit soup, or cold items with honey after *Virechana*.
- After the Vaman and Dlanghana, Shoola purgation should be performed at Kukshi. Sushruta suggested powdered Bacha, Sauvarchala, Hingu, Kushtha, Ativisha, Indrayava, and Abhaya for Virechana. These medications rapidly reduce the patient's Kukshi shoola and purge him or her. Sushruta also suggested the Virechana and suggested Triphala, Trivritta, Draksha, and other remedies for the Virechanda in Vit shoola.

# Basti - Medicated Enemas

In order to cure *Shoola, Basti* (medicated enema) is recommended. Although it is specifically mentioned in *Vatika shoola,* it can be used to any kind of *Shoola* in accordance with the situation. For the treatment of *Shoola,* both *Anuvasana* and *Niruhana basti* have been recommended. No technique is better than *Basti* therapy for the treatment of vitiated *Vata* since it is recognized by all Ayurvedic experts as the primary causative factor for all sorts of *Shoola roga.* Consequently, *Basti* is a crucial treatment for *Shoola.* 

An effective treatment for Vatika shoola is Basti. Vatika shoola should always be treated with the Basti process if it does not go away or get better on its own. *Basti* may come in a variety of forms. (i) Asthapana basti of decoction of Pippali, Devadaru, Bilwa, Madanphala, etc. is used after Snehan and Swedana and is particularly recommended in conditions including constipation, urine retention, and meterorism. (ii) Asthapana basti, a mixture of oil, honey, Bacha, Pippali, Sandhava, and other ingredients. It is specifically mentioned in Vastishoola and meterorism. (iii) The Kulatha, Yava, Kola, Panchamoola, and oil decoction should be employed in Bastikarma to intensify the "Aqni." Second is a therapeutic oil mixture called *Basti*, which is composed of Pippali, Kushtha, Bacha, Sandhava, Indrayava, Tagar, and other herbs.

# **Principles of Treatment**

- *Vataja Parinama Shoola* -*Sneha* (external and internal administration of medicated ghee and oil)
- Pittaja Parinama Shoola Virechana or Medicated
  Purgation
- *Kaphaja Parinama Shoola -Vamana* or Medicated emesis
- **Dwandwaja Parinama Shoola** -Sneha should be administered as in Vataja Parinama Shoola
- *Tridoshaja Parinama Shoola* -Should be manage very carefully as per experience

# Different Yogas /Ayurvedic Formulation Used in Parinama Shoola

- Deepaneeya Peya
- Dasanga Ghrita
- Hingu Twagadi Choorna
- Modakadi Choorna
- Shoolari Choorna
- Tamula Bhasma
- Kumaryasava
- Sasa Vasadi Ghrita

# Pathya and Apathy

- Eat three modest meals throughout the day to prevent hunger pangs and overeating.
- Eat mindfully and chew food thoroughly.
- During and for an hour after eating, keep your head up.
- Refrain from eating three hours before night.
- Snacks before bed induce stomach acid to secrete during night.
- Steer clear of fatty, rich, spicy, and hot-and-sour meals.
- Drinks, tomato, citrus, chocolate, and tomato goods confectionery products
- Every meal should have a quality protein source (milk, meat, egg, cheese).
- Give up smoking. Avoid alcoholic beverages, coffee, tea, and calorically-dense carbonated beverages.
- Use of aspirin-containing analgesics is prohibited. Take just the recommended dosage of antacids because steroids can potentially hasten the development of ulcers.
- Stay hydrated in between meals.

# DISCUSSION

Madhav Acharya According to *Nidana, Annadravashoola* is a type of *Shoola* that differs from other types in that it causes discomfort after vomiting and during and after food digestion. *Vata Prakopa* causes the exacerbated *Vata dosha* in the *Koshtha* to encircle the neighboring *Pitta* and *Kapha doshas* and grow powerful enough to cause colic discomfort during the digestion of ingested food.<sup>[11]</sup> While the meal is being transformed, *Kapha* breaks down from its own place and combines with *Pitta* and *Vata* to generate colic discomfort. *Annadravashoola* is the name for this typical colic or shoola.<sup>[12]</sup>

The ailment known as *Shleshmaja Krimi*, which is analogous to pylori, was mentioned by Acharya Charaka. Because of its dimensions, shape, symptoms, and h. pylori genesis in the duodenum and stomach's antrum. *Shleshmaja krimi* is called *Amashaya*. *Amashaya* is used to compare to the duodenum. <sup>[13]</sup> Peptic ulcer disease is not a recently discovered illness; rather, it is a long-standing condition that is related to all of the *Parinama* and *Annadrava shoola* in Ayurveda. **CONCLUSION** 

In summary, the pathogenesis of *Parinama* shoola and *Annadrava* shoola is influenced by *Vata*, *Pitta*, *Kapha*, and *Shleshmaja* krimi. The main imbalance that causes discomfort to be felt in the abdomen region is *Vata*, which is associated to the parasympathetic nervous system. With its mucus layer and mucin, *Kledak kapha* mimics mucin. *Kledaka kapha* 

is a protective mechanism in the pathogenesis of *Parinama shoola* and *Annadrava shoola*, it may be inferred. *Pitta* is an aggressive factor for *Parinama shola* and *Annadrava shoola* and is associated with HCL and pepsin. Additionally, there is a link between the *Shleshmaja krimi* and the Helicobacter pylori.

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