

Research Article**Structural Changes in the Upper Gastrointestinal Tract in Vātaja Parināmasūla: A Comprehensive Review with Special Reference to Oesophago-Gastro-Duodenoscopy (OGD)****Dr Gaurav Santosh Raut¹, Dr Madhuri Mahadar²**¹Pg Scholar, Department of Rachana Sharir Pdea's College of Ayurveda & Research Centre, Nigdi, Pune²Associate Professor, Department of Rachana Sharir Pdea's College of Ayurveda & Research Centre, Nigdi, PuneCorresponding Author: **Dr Gaurav Santosh Raut****Abstract**

Parināmasūla, a classical disease entity from Ayurvedic literature, is fundamentally defined as abdominal pain that manifests during the digestive cycle (parināma). This condition, extensively described in authoritative texts such as the Mādhava Nidāna and Yogaratnakar, represents a significant portion of gastrointestinal ailments encountered in clinical practice. The Vātaja subtype of this disorder is specifically characterized by the predominance of vitiated Vāta doṣa, presenting with a distinct cluster of symptoms including abdominal distension (Ādhmāna), audible gurgling sounds (Āṭōpa), obstruction of feces and urine (Viṅmūtra Vibandha), and profound restlessness (Arati). Historically, the diagnosis of Vātaja Parināmasūla has been anchored in this detailed clinical symptomatology (lakṣaṇaśāstra). While contemporary medical science often draws parallels between Parināmasūla and Peptic Ulcer Disease (PUD), particularly duodenal ulcers, this direct correlation remains a subject of investigation and may not encompass the full spectrum of the Ayurvedic diagnosis. A significant knowledge gap persists concerning the precise structural and pathological changes within the upper gastrointestinal (GI) tract that correspond to the classical description of Vātaja Parināmasūla. This review aims to meticulously explore the classical Ayurvedic understanding of this condition and to highlight the indispensable role of modern diagnostic technologies, specifically Oesophago-Gastro-Duodenoscopy (OGD), in elucidating its underlying pathology. OGD offers a direct, real-time visualization of the esophageal, gastric, and duodenal mucosa, providing an objective means to identify and document structural abnormalities such as inflammation, erosions, ulcerations, or atrophic changes. The integration of OGD findings into Ayurvedic research is poised to validate classical diagnostic principles, refine the pathophysiological understanding (saṃprāpti), and pave the way for more evidence-based, precise, and effective therapeutic interventions. This article synthesizes existing literature, analyzes the proposed research methodology, and underscores the imperative for such integrative studies to bolster the scientific validation and clinical utility of Ayurvedic gastroenterology.

Keywords: Vātaja Parināmasūla, Ayurveda, Oesophago-Gastro-Duodenoscopy (OGD), Peptic Ulcer Disease (PUD), Structural Changes, Samprapti, Grahani, Mādhava Nidāna

1. Introduction

Ayurveda, the traditional Indian system of medicine, approaches gastrointestinal disorders with a sophisticated clinical methodology rooted in the principles of Tridoṣa (the three fundamental bio-energies: Vāta, Pitta, Kapha). Disorders of the Annavaha Srotas (channels

of food transport) are particularly well-documented, given their central role in maintaining overall health. Among these, Parināmasūla stands out as a distinct clinical entity characterized by its unique temporal relationship with the process of digestion. Its management and diagnosis are detailed in foundational Ayurvedic texts, most notably in the Śūla Adhyāya (Chapter on Colic) of Mādhava Nidāna¹ and in the Yogaratnakar². This review will delve into the classical understanding of its Vātaja variant and explore how modern endoscopic techniques can be used to correlate its ancient clinical description with contemporary structural pathology.

2. A Detailed Review of Literature: The Classical Conception of Parināmasūla

A thorough review of classical Ayurvedic literature is essential to appreciate the nuanced diagnostic criteria for Parināmasūla.

2.1 Etymology and Core Definition

The term Parināmasūla is a composite of 'Parināma,' meaning 'transformation' or 'digestion,' and 'Sūla,' meaning 'severe, colicky pain.' The core definition, which serves as the primary diagnostic criterion, is articulated in the verse: 'Bhukte jīryanti yat śūlaṃ tadevaṃ pariṇāmajam'— "the colic that occurs when food is being digested is known as Parināmasūla"³. The Vidyotini commentary on Mādhava Nidāna further clarifies this as 'śūlaṃ jīryanti bhojane' (pain while food is being digested)⁴, distinguishing it from pain that occurs on an empty stomach or immediately post-meal.

2.2 General Symptomatology (Sāmānya Lakṣaṇa)

Classical texts provide a detailed topography of the pain. The sāmānya lakṣaṇa (general symptoms) describe pain that can manifest in the epigastrium (Kukṣi), abdominal flanks (Jāṭhara pārśva), umbilical region (Nābhi), suprapubic area (Basti), and even radiate to the inter-mammary (Stanāntare) and sacral regions (Pṛṣṭhamūla). This wide distribution of pain suggests a deep-seated visceral origin affecting the central digestive organs. A critical diagnostic feature is the pattern of relief (upaśaya) and aggravation (anupaśaya). The pain is characteristically relieved by the intake of a subsequent meal (Bhuktamatre) or by emesis (Vānte mātṛe), which empties the stomach of its acidic contents. Conversely, it is aggravated by certain foods, especially those prepared from aged rice varieties like śāṣṭika and vṛiḥi.

2.3 The Vātaja Subtype (Viśiṣṭa Lakṣaṇa)

When Vāta doṣa is the predominant force in the pathogenesis, the disease is classified as Vātaja Parināmasūla. Its specific clinical features (viśiṣṭa lakṣaṇa) are described in the verse: 'Ādhmānātopaviṇmūtravibandhārativepanaiḥ | Snigdhoṣṇopaśamaṃprāyaṃ vātikam tadvadadbhiṣak ||'⁵. This verse outlines the following key symptoms:

- **Ādhmāna and Ātōpa:** Abdominal distension with gas and audible gurgling sounds, respectively. These are cardinal signs of erratic Vata movement (vāyu-prākopa) and impaired digestion.
- **Viṇmūtra Vibandha:** Obstruction or difficulty in passing feces and urine. This points to the vitiation of Apāna Vāyu, the subtype of Vata that governs all downward eliminatory functions.
- **Arati and Vepana:** Profound restlessness/malaise and tremors. These are systemic manifestations of aggravated Vāta doṣa affecting the nervous system (Majja dhātu).
- **Snigdhoṣṇa Upaśama:** A definitive therapeutic indicator where symptoms are alleviated by substances and therapies that are snigdha (unctuous/oily) and uṣṇa (warm), as these qualities directly counteract the cold, dry nature of Vāta.

3. Pathophysiology (Samprapti) of Vātaja Parinamaśūla

The samprapti (pathogenesis) of Vātaja Parināmasūla is initiated by causative factors (nidānas) such as an irregular diet, excessive consumption of dry and cold foods, stress, and suppression of natural urges. These factors aggravate Vāta doṣa within the gastrointestinal tract (Koṣṭha). The aggravated Vāta, with its inherent qualities of rūkṣatā (dryness) and kharatva

(roughness), erodes the protective mucous lining (śleşmaka kalā) of the stomach (āmāśaya) and duodenum (grahani). This protective layer, a function of Kledaka Kapha, acts as a buffer. Once this barrier is breached, the underlying mucosa is exposed to the corrosive action of digestive fluids (pācaka pitta), leading to intense pain during the digestive phase, inflammation, and potential tissue damage (dhatukṣaya).

4. Previous Research and Identification of the Knowledge Gap

A review of modern research on Parināmaśūla, based on the list of previous works provided in the research protocol, reveals a consistent and clear trend. The vast majority of studies conducted over the past few decades have focused on therapeutic evaluation, often with the presupposition that Parināmaśūla is synonymous with Peptic Ulcer Disease (PUD).

For instance, studies such as Verma's work on Amalaki Rasayana (1981) and Katiar's evaluation of Pravala-Panchamrita (1993) were explicitly designed as clinical trials to manage Parināmaśūla with a special reference to peptic ulcers. Other studies evaluated formulations like Shatavari Mandoor, Dhatri Loha, and therapies like Ksheera-Basti⁶. A particularly notable study by Tewari (1980) involved a comparative analysis of gastro-duodenal diseases (Amlapitta and Parināmaśūla) between Ayurveda and modern medicine. While these therapeutic studies are fundamentally important for validating Ayurvedic treatments, they begin with the assumption of a diagnosis. They primarily answer the question, "Is this Ayurvedic therapy effective for PUD?"

This focus on therapeutics has inadvertently left a more fundamental question unanswered. The research protocol accurately identifies this as the "present knowledge gap," stating, "Various ayurved samhita and books describe the lakshana of vataj parinamshool but what are the structural changes that are occurring in upper GI tract which are responsible for these lakshanas is necessary to be find out"⁷. The crucial, unaddressed question is: What is Vātaja Parināmaśūla from a structural and pathological standpoint? Does every patient who perfectly fits the classical symptomatic criteria of Vātaja Parināmaśūla actually have a peptic ulcer? Or does the diagnosis represent a broader spectrum of conditions, such as non-ulcer dyspepsia⁸, chronic gastritis, or duodenitis? The previous body of work has not systematically addressed this foundational diagnostic correlation.

5. Oesophago-Gastro-Duodenoscopy (OGD): The Methodological Bridge

The proposed cross-sectional study is designed specifically to address this identified knowledge gap using Oesophago-Gastro-Duodenoscopy (OGD), the gold-standard diagnostic tool for upper GI pathology. The study's primary objective is not to test a treatment but "To find out structural involvement and changes in upper Gastro-Intestinal tract of patients having vataj parinamshool."⁹. The methodology is robust. By enrolling a statistically relevant sample size of 46 patients who meet strict inclusion criteria (a pre-existing clinical diagnosis of Parināmaśūla for at least one year with clear Vātaja features), the study aims to create an objective map of endoscopic findings. The table below illustrates how potential OGD findings could be correlated with both modern and Ayurvedic interpretations, providing a framework for the study's analysis.

Structure Involved	Potential OGD Finding	Possible Modern Correlation	Ayurvedic Interpretation (Doṣic Involvement)
Stomach / Duodenum	Normal Mucosa (No visible lesion)	Functional Dyspepsia (Non-Ulcer Dyspepsia)	Predominantly a functional disorder. Kevala Vāta Prakopa (vitiation of Vāta alone) causing erratic motility and visceral hypersensitivity without structural damage.
Stomach / Duodenum	Erythema, Petechiae, Edema	Gastritis / Duodenitis	Vitiation of Pitta (prakopa) alongside Vāta. Pitta's hot

	(Redness, spot bleeding, swelling)		and sharp qualities cause inflammation, while Vāta causes the pain. A Vāta-Pitta condition.
Stomach / Duodenum	Superficial Erosions	Erosive Gastritis / Duodenitis	Increased intensity of Pitta causing minor tissue destruction. Vāta vitiation continues to drive the pain and discomfort.
Stomach / Duodenum	Discrete Ulcer Crater (Vraṇa)	Peptic Ulcer Disease (PUD)	A severe Vāta-Pitta condition leading to significant localized tissue destruction (dhātuḥśaya). The ulcer represents a deep-seated pathological process.
Stomach	Atrophic Mucosa (Thin, pale lining)	Atrophic Gastritis	Chronic and severe Vāta predominance leading to tissue wasting and depletion of the protective Kapha layer. This indicates a long-standing, degenerative process.

This systematic approach of correlating objective findings with theoretical constructs will provide invaluable data. The research will meticulously document the state of the entire upper GI tract, noting the presence or absence of these pathologies¹⁰.

6. Conclusion and Future Implications

This detailed review of literature, encompassing both classical Ayurvedic texts and modern research trends, establishes a clear context for the proposed study. While Ayurveda's clinical description of Vātaja Parināmaśūla is remarkably precise, its correlation with modern pathological findings remains largely presumptive. The existing body of research has focused heavily on validating treatments for an assumed diagnosis (PUD), while this study takes a necessary step back to validate the diagnosis itself.

The potential implications of this research are profound:

- **Diagnostic Validation:** The study could confirm that Vātaja Parināmaśūla strongly correlates with duodenal ulcers, thereby scientifically validating the long-held assumption. Alternatively, it might reveal that the condition is more commonly associated with functional dyspepsia or gastritis, revolutionizing its understanding.
- **Refined Therapeutic Strategies:** A definitive structural diagnosis allows for more precise treatment. A patient with a confirmed ulcer and *H. pylori* may require a different therapeutic focus than one with functional dyspepsia, even if their doṣic presentation is similar.
- **Strengthening Evidence-Based Ayurveda:** By building a robust bridge between classical symptomatology (lakṣaṇa) and modern pathology, this research will significantly enhance the scientific credibility of Ayurvedic diagnostics.
- **Improved Patient Outcomes:** As stated in the research protocol's patient information sheet, a clear diagnosis allows for better guidance and referral to specialists when needed, ultimately improving patient care¹¹.

In conclusion, this proposed research is not merely an academic exercise but a pivotal investigation aimed at enriching the ancient wisdom of Ayurveda with the clarity of modern

science. It seeks to move the understanding of Vātaja Parināmasūla from a syndrome based on subjective symptoms to a clinical entity defined by objective, observable evidence.

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