



"AN INTEGRATIVE LITERATURE REVIEW OF VOMITING (CHARDI) IN AYURVEDA AND MODERN MEDICINE IN CHILDRENS"

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ABSTRACT :

Vomiting (Chardi) is a common yet clinically significant issue in childrens, especially during the breastfeeding stage (Kshirap Awastha). According to Ayurveda, it results from an imbalance of Pitta and Kapha doshas, often caused by improper diet, emotional stress, or vitiated breast milk (Stanya Dushti). In modern medicine, vomiting is considered a complex reflex controlled by the medullary vomiting center and may stem from a wide range of gastrointestinal or systemic causes. This review brings together perspectives from both Ayurveda and modern medicine to offer a comprehensive understanding of Chardi. It highlights the causes, symptoms, complications, and treatment options in both systems. While modern medicine focuses on quick symptom control through medications, Ayurveda emphasizes balancing the doshas and promoting holistic wellness. By integrating the strengths of both approaches, especially in the care of infants, we can aim for safer and more effective treatment strategies.

INTRODUCTION

Vomiting, or Chardi, is a frequent symptom seen across all age groups, but it carries particular importance in children. In Ayurvedic texts, Chardi is described as a condition arising from multiple causes, mostly linked to imbalances in Pitta and Kapha doshas. These imbalances are often triggered by unhealthy eating habits and emotional stress.

Modern medicine defines vomiting as the forceful ejection of stomach contents through the mouth. This action is controlled by a center in the brainstem and involves a complex interaction of nerves and hormones. It usually occurs as a sign of an underlying digestive or systemic problem.

In infants (Kshirap Awastha), vomiting can quickly lead to serious complications like dehydration and nutritional deficiencies, making it essential to understand and manage carefully. Despite the wealth of information available in both classical Ayurvedic texts and modern pediatric literature, there is little research that compares the two systems or looks at how they can complement each other. This gap highlights the need for integrative studies that can help improve pediatric care through a combined approach.

Knowledge Gap and Need for Research:

Current literature is either limited to traditional Ayurvedic explanations or focuses solely on modern perspectives. Very few studies offer a consolidated, comparative analysis of Ayurvedic and modern approaches to vomiting in infants. Furthermore, the efficacy and safety of Ayurvedic interventions during breastfeeding (Kshirap Awastha) remain underexplored in a systematic manner. There is a need to bridge this gap to promote integrative pediatric care that is both evidence-based and culturally sensitive.

Research Questions:

1. What are the similarities and differences in the etiopathogenesis and classification of Chardi in Ayurveda and modern medicine?
2. What are the respective treatment approaches, and how can they be integrated to enhance safety and efficacy in childrens?
3. How does the Ayurvedic concept of Stanya Dushti correlate with modern etiological factors in infantile vomiting?

METHODS:

This narrative review is based on classical Ayurvedic texts such as Charak Samhita, Sushruta Samhita, Ashtanga Hridaya, Kashyap Samhita, and Bhavaprakasha, alongside modern pediatric textbooks and peer-reviewed sources on gastrointestinal physiology. Emphasis was placed on traditional classifications, etiopathogenesis (samprapti), clinical features (roopa), complications, and treatment protocols (chikitsa) in both systems of medicine. The review also considered data from previously published theses where available, with a focus on pediatric cases.

RESULTS:

Ayurvedic Perspective

Etiopathogenesis (Samprapti)

According to Ayurveda, Chardi is caused by the vitiation of doshas, primarily Pitta and Kapha, and occasionally Vata. Common causes include:

1. Overeating – Atimatra Ashana
2. Intake of incompatible or stale foods – Viruddha Ahara / Jirna Ahita Ahara Sevana
3. Excessive intake of liquids or oily food – Liquids: Ati Drava Sevana
Oily food: Ati Snigdha Ahara
4. Psychological stress or fear – Manasika Karana such as Chinta,, Bhaya
5. Worm infestations – Krimi Roga
6. Stanya dushti (vitiated breast milk in infants)

The pathogenesis involves pratiloma gati (reverse movement) of Vyan and Udana Vayu, triggering the upward expulsion of contents.

Types of Chardi

- Vataja Chardi: Dry vomiting, chest pain, headache, blackish frothy vomitus
- Pittaja Chardi: Burning sensation, sour/bitter vomitus, fever, thirst
- Kaphaja Chardi: Heaviness, sweet taste, thick white vomitus, lethargy
- Sannipataja Chardi: Mixed features of all doshas, often severe
- Agantuja Chardi: Includes Bhibatsaja (disgust), Douhrdaja (pregnancy), Krimija (parasites)

Clinical Features (Roopa) and Purvarupa (Prodromal Signs)

- Nausea, salivation (Kapha praseka)
- Dislike for food (Annadvesha)
- Pain in chest/abdomen
- Headache, dizziness, burning sensation
- Type-specific color and consistency of vomitus

Complications (Upadrava)

- Kasa (cough)
- Shwasa (dyspnea)
- Jwara (fever)
- Trushna (thirst)
- Hikka (hiccups)
- Tama darshana (blackouts)

Prognostic Indicators

Poor prognosis is indicated by:

- Foul-smelling, fecal-like vomitus
- Severe dehydration/emaciation
- Presence of blood/pus
- Associated with dyspnea or hiccups

Management (Chikitsa)

- Langhana (Fasting): In initial or mild cases
- Shodhana (Purification): Vamana for Kapha, Virechana for Pitta (not for infants)
- Shamana (Palliative therapy): Preferred in children
- Herbal formulations: Eladi churna, Vamanamrutam, Ghrita (Bruhat Chagaladya Ghrita), decoctions (Amra, Jambu, Usheera)

Dietary Management (Pathya-Apathya):

- Recommended: Haritaki, pomegranate, lemon, jaggery, coconut, Laja, mudga
- Avoid: Oily/spicy food, Nasya, Bastis, sensory stimulation

Modern Medical Perspective

Definition and Physiology-

Vomiting is a complex reflex coordinated by the vomiting center in the medulla, influenced by:

- Chemoreceptor Trigger Zone (CTZ)
- Vestibular System
- GI and extra-GI afferents
- Cortex (psychogenic inputs)

Causes of Vomiting in Children

- Neonates: Atresia, GERD, NEC, infections
- Infants: Pyloric stenosis, intussusception, CNS lesions
- Children: Gastroenteritis, hepatitis, psychogenic vomiting, DKA, appendicitis

Mechanism and Phases

- Pre-ejection Phase: Nausea, autonomic symptoms
- Ejection Phase: Retching and forceful expulsion
- Post-ejection : Relief or fatigue

Complications

- Dehydration, electrolyte imbalance
- Nutritional deficiencies
- Mallory-Weiss tear, aspiration pneumonia
- Shock in severe cases

Treatment

Pharmacotherapy:

- Prokinetics: Metoclopramide, Domperidone
- Dopamine Antagonists: Haloperidol, Prochlorperazine
- Antihistamines: Promethazine, Meclizine
- Anticholinergics: Scopolamine
- 5HT₃ Antagonists: Ondansetron

Supportive Care:

- Rehydration (oral or IV)
- Nutritional support
- Investigate underlying cause

DISCUSSION

Ayurveda offers a detailed and insightful explanation of Chardi, especially in children. Its approach to classifying vomiting based on dosha involvement shows parallels with modern medicine's understanding—for instance, differentiating bilious from non-bilious vomiting. The concept of Agantuja Chardi, which includes causes like fear, disgust, or infection, aligns with modern ideas of psychogenic or toxin-related vomiting.

Ayurvedic treatment often uses mild, safe remedies such as honey- or ghee-based herbal formulations, which can be easily aligned with modern methods like oral rehydration and antiemetic drugs. However, purification therapies like induced vomiting or purgation (Shodhana) are not suitable for infants. Instead, gentler approaches like diet regulation (Samsarjana Krama) are preferred.

In modern medicine, medications such as ondansetron and metoclopramide are effective in managing acute vomiting. Chronic or recurrent cases require further investigation to identify any underlying structural or metabolic causes. Despite advances in drug therapy, traditional remedies like ginger, clove, and pomegranate still play a role in both home care and integrative medicine due to their natural antiemetic and digestive properties. By drawing from both systems, we can offer a more holistic and adaptable form of care. This is especially important for infants, where the goal is not just symptom relief but overall well-being and safety.

Conclusion:

Chardi is a multifactorial symptom with significant clinical relevance in both Ayurvedic and modern medicine. An integrative approach, combining the diagnostic precision and acute management strategies of allopathy with the preventive and doshic-balancing therapies of Ayurveda, offers a comprehensive care model. Pediatric cases, particularly in the breastfeeding phase, require tailored interventions with an emphasis on gentle, safe, and supportive care.

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