

A Literary Review on Ayurvedic Management of Dentitional Diseases in Infants

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Abstract

In the vast realm of Ayurveda, Danta Sharir—the study of teeth—occupies a pivotal role within Rachna Sharir (the science of bodily structures). This classical discipline offers a profound understanding of the anatomy, development, and functional dynamics of teeth. Among the revered Ayurvedic texts, Kashyapa Samhita distinctly stands out, dedicating a comprehensive chapter titled Dantjanmika Adhyaya entirely to the origin, growth, and characteristics of teeth, reflecting the ancient wisdom and intricate knowledge of infant dental development.

The physiological process of tooth eruption, termed Dantodbheda, marks a critical milestone in infant growth, symbolizing the transition toward masticatory functionality. However, this phase is frequently accompanied by a constellation of symptoms—ranging from mild discomfort to systemic disturbances—collectively described as Dantodbheda Vyadhi, or ailments associated with tooth eruption. These manifestations often perplex caregivers and practitioners alike, largely because the etiopathogenesis of such symptoms remains insufficiently understood, even in contemporary pediatric care.

This literary review embarks on an exploratory journey to elucidate the Ayurvedic conceptualization of Dantodbheda and its related disorders, drawing from classical scriptures and juxtaposing these insights against modern scientific understanding. The review highlights the lacuna in contemporary dentistry and medicine regarding the management of teething-related complications and advocates for a revived appreciation of Ayurveda's holistic therapeutic arsenal.

Although modern clinical practice does not specify distinct treatment protocols aligned with Ayurvedic classifications of dental disorders, Ayurveda compensates with a rich pharmacopeia of Aushadh Yogas—herbal formulations and preparations designed to soothe, heal, and balance the disturbances arising during tooth eruption. These time-honored remedies offer not only symptomatic relief but also address the underlying doshic imbalances, nurturing the infant's overall health and well-being.

By synthesizing classical Ayurvedic wisdom with contemporary perspectives, this review aims to foster a more comprehensive, integrative approach toward infant dentitional health—one that honors the past's deep understanding while embracing the needs of today's clinical practice.

Keywords: Dentition, Dantodbheda, Dantodbhavajanya Vyadhi, Tooth Eruption, Infant Oral Health, Ayurvedic Dentistry

INTRODUCTION

In Ayurveda, the concept of Danta Sharir—the anatomical and physiological study of teeth—holds significant importance and is elaborately explored within the domain of Rachna Sharir (the science of

bodily structures). Teeth are not merely physical entities but are deeply woven into the fabric of Ayurvedic health, reflecting the balance of doshas and the integrity of bodily tissues. Various classical Ayurvedic texts offer descriptions of teeth, their formation, and function, yet among them, Kashyapa Samhita stands out as a seminal work, dedicating an entire chapter called the Dantjanmika Adhyaya exclusively to the teeth and their development¹. This detailed exposition highlights the ancient scholars' meticulous observation and understanding of dentition.

According to Ayurvedic tradition, a typical adult human possesses 32 teeth, which are divided into two categories based on their developmental patterns. Eight of these teeth are termed Sakritjata or permanent teeth, designed to emerge only once during a lifetime and to serve throughout adulthood. The remaining 24 are classified as Divija or secondary teeth, which erupt in two distinct stages during early life. The teeth are further categorized by their shapes and functions: the central incisors are called Rajadanta, lateral incisors Bastadanta, canines are known as Damshttra, and the molars, which grow on original roots, are referred to as Hanavya². These precise terminologies not only indicate anatomical features but also reflect the Ayurvedic understanding of their roles in digestion and health.

The process of teething, medically recognized as the eruption of an infant's first set of teeth—commonly called deciduous teeth—is a crucial developmental milestone. This eruption follows a relatively sequential pattern, typically occurring in pairs and progressing symmetrically across the jaws³. Kashyapa Samhita provides comprehensive descriptions of the characteristics of ideal teeth, including their timing of eruption, shape, color, and texture, reflecting the Ayurvedic emphasis on harmony and balance in physiological processes. Furthermore, the text describes various disorders that may accompany tooth eruption, as well as unhealthy traits that can affect the teeth's integrity and function.

In Ayurvedic literature, the physiological event of tooth eruption is known as Dantodbhhd, while the spectrum of signs and symptoms that accompany this process are collectively termed Dantodbhhdjanya Vyadhi—denoting the diseases or ailments associated with tooth eruption. These symptoms often manifest as local irritation, inflammation, excessive salivation, and in some cases systemic manifestations like fever and irritability. Despite being a natural phase of infant development, the exact causes and mechanisms of these symptoms remain elusive in modern medicine.

From a contemporary medical viewpoint, there is no explicit or standardized management protocol for the specific dental conditions classified by Ayurveda during tooth eruption. Modern dentistry largely addresses symptomatic relief without categorizing these ailments in the nuanced way Ayurveda does. In contrast, Ayurveda offers a holistic and comprehensive therapeutic framework through various Aushadh Yogas—herbal formulations carefully prepared and prescribed to manage symptoms related to Dantodbhhd Janya Vyadhi (diseases arising from tooth eruption). These formulations aim not only to alleviate local discomfort but also to balance systemic doshas, strengthen dhatus (body tissues), and promote overall infant health.

This review, therefore, seeks to explore and synthesize the Ayurvedic understanding of infant dentitional diseases, with special emphasis on the signs and symptoms associated with Dantodbhhd and the traditional management strategies that can be harnessed for better clinical outcomes.

Signs and Symptoms

The eruption of primary teeth, a hallmark of infant growth, generally begins between the ages of 4 to 8 months. This initial phase typically starts with the emergence of the lower central incisors, a moment eagerly anticipated by parents and caregivers alike. The entire primary dentition, including the second

primary molars, usually completes its eruption cycle by 30 to 36 months of age. However, it is important to recognize that the timing of tooth eruption is not rigid—variations of up to six months are commonly observed from one child to another, reflecting the natural diversity in developmental trajectories^{5,6}.

Despite being a universally acknowledged stage of early childhood, teething remains surprisingly misunderstood, particularly regarding the precise causes and nature of the signs and symptoms that accompany it. This gap in knowledge—both in modern medicine and even among caregivers—has underscored the necessity for a detailed review aimed at elucidating the symptomatic landscape of teething, as well as identifying effective management strategies grounded in both traditional and contemporary approaches.

From a modern scientific perspective, the common signs and symptoms associated with the eruption of primary teeth are varied but generally mild and self-limiting. These include increased biting behavior, excessive drooling, gum-rubbing, sucking on objects, heightened irritability, disturbances in sleep patterns, ear-rubbing, facial rashes, decreased appetite for solid foods, and occasionally a mild elevation in body temperature⁷. These manifestations are typically viewed as localized responses to the mechanical and inflammatory stimuli produced by erupting teeth.

In addition to these common symptoms, less frequent or more severe signs have also been documented. These uncommon symptoms may include nasal congestion, more significant sleep disturbances, loose stools or increased frequency of bowel movements, reduced intake of liquids, coughing episodes, rashes beyond the facial area, high-grade fever exceeding 102.8°F, and vomiting⁸. Such symptoms often raise concern among parents and clinicians alike, necessitating careful evaluation to distinguish teething-related changes from other pathological conditions.

Ayurveda, with its ancient wisdom and holistic lens, offers a broader and more nuanced understanding of the ailments linked to the teething process. The classical texts describe an array of Dantodbhedjanya Vyapad—or dentitional disorders—associated with Dantodbhhd (tooth eruption). These include systemic and localized manifestations such as Jwar (pyrexia or fever), Atisar (diarrhea), Kasa (cough), Chardi (vomiting), Shirashool (headache), Abhishyand (conjunctivitis), Pothaki (trachoma), Visharp (erysipelas), Trushna (thirst), and Bhrama (delirium)⁹. The occurrence of these symptoms during the teething phase reflects Ayurveda's recognition of the interconnectedness of the oral cavity with systemic health and the subtle disturbances in dosha balance provoked by the eruptive process.

The teething period, therefore, is often challenging—not only due to the physical discomfort experienced by the infant but also because of the broader impact these symptoms can have on feeding, sleeping, and overall mood. This phase can be taxing for caregivers as well, who must navigate the delicate balance of comfort and treatment. Understanding the full spectrum of signs and symptoms—through both Ayurvedic and modern lenses—provides a foundation for developing integrative management strategies that respect the infant's delicate physiology and promote harmonious development.

Symptoms and Their Likely Causes

Irritability:

The discomfort and pain experienced by infants during tooth eruption are primary drivers of irritability. As the sharp edges of developing teeth push through the sensitive gum tissue, localized inflammation and tenderness ensue, triggering restlessness and fussiness. From an Ayurvedic standpoint, this can be understood as a temporary imbalance of Vata dosha, which governs movement and nervous system

activity, resulting in heightened sensitivity and emotional disturbance.

Drooling:

Teething naturally stimulates an increase in salivary secretion, which serves as a soothing mechanism for the inflamed gums. This excess saliva production leads to noticeable drooling, which in turn can cause skin irritation. The constant moisture, coupled with bacterial flora present in saliva, often results in a characteristic rash around the mouth, chin, cheeks, and neck area. Ayurvedic texts describe this condition as Mukhashosha or Tala, emphasizing the need to maintain skin integrity during this phase.

Coughing:

Excess saliva produced during teething may drip down the throat, occasionally triggering coughing or mild gagging. This reflex is generally benign and self-limiting, provided the infant does not exhibit signs of respiratory distress or systemic infection such as a high-grade fever or persistent cough. Ayurveda acknowledges such symptoms as secondary effects related to Kapha aggravation due to mucus accumulation in the throat, often managed by herbal decoctions to pacify Kapha.

Biting and Gnawing:

Infants instinctively bite or gnaw on objects to exert counterpressure on the gums. This behavior provides mechanical relief from the discomfort caused by erupting teeth by alleviating localized inflammation and stimulating blood flow. In Ayurvedic terms, this can be seen as a natural self-healing process to balance Vata and Pitta doshas at the site of eruption.

Cheek Rubbing and Ear Pulling:

Pain from the gums frequently radiates to adjacent areas, including the cheeks and ears, especially when the molars start to erupt. Infants may respond by rubbing their cheeks or pulling on their ears, unconscious attempts to soothe referred pain. This phenomenon correlates with the nerve pathways shared between the gums and ears, and Ayurveda might attribute it to the aggravated Vata influencing the neural circuits around the face.

Diarrhea:

Swallowing increased amounts of saliva during teething can mildly upset the gastrointestinal tract, leading to looser stools or mild diarrhea. This occurs due to the saliva's enzymatic and slightly irritative properties on the gut lining. Ayurveda classifies this as a disruption in Agni (digestive fire) and Vata dosha imbalance affecting the Annavaha Srotas (digestive channels), necessitating digestive-supportive herbal interventions.

Low-Grade Fever:

Mild elevations in body temperature—typically not exceeding 38.5°C—may occur during tooth eruption due to gingival inflammation or secondary infections introduced by infants' habit of placing hands and other objects into their mouths. Ayurveda recognizes this as Jwara (fever) resulting from the inflammatory process and Ama (toxins) accumulation, which can be alleviated with appropriate herbal remedies to balance Pitta and enhance immunity.

Cold-Like Symptoms:

Symptoms such as a runny nose, coughing, and general nasal congestion may arise as infants frequently put their fingers into their mouths, exposing themselves to environmental germs. These mild respiratory symptoms are often transient and self-limited. From an Ayurvedic viewpoint, this reflects a temporary increase in Kapha dosha, calling for supportive therapies that clear respiratory passages and enhance immunity.

Pathological classification of teeth¹⁰

Pathological Teeth	Symptoms
1.Samvruta	<ul style="list-style-type: none"> • Adanya (looking ugly not appreciated) • Malistham (Discolored,Deposition etc.)
2.Samudga	<ul style="list-style-type: none"> • Kshychi (Decay) • Nityasanpatata (Early falling)
3.vivruta	<ul style="list-style-type: none"> • Nityalalaupahat (excessive salivation) • asanachana (unable to close the mouth) • vaivarnayata (discoloration)

When it comes to the management of teething disorders, modern medicine admits a rather humble truth: there is no specific cure or treatment for the teething process itself. The eruption of teeth is a natural physiological milestone, and medical interventions focus primarily on alleviating the discomfort and secondary symptoms that arise during this phase, rather than accelerating or directly treating tooth eruption.

Symptomatic Relief in Modern Medicine:

Most modern approaches center on supportive care to help the infant and caregivers navigate this often challenging period with less distress:

Pain and Fever:

Infants frequently experience discomfort due to inflamed gums and mild low-grade fevers related to teething. To manage this, medications such as paracetamol (acetaminophen) and ibuprofen are commonly used. These drugs act as analgesics and antipyretics, providing effective relief from pain and reducing fever. However, they are purely symptomatic treatments — soothing the pain but not affecting the underlying tooth eruption process itself.

Vomiting:

Though less common, some infants may experience nausea or vomiting during teething, possibly due to excessive saliva swallowing or gastrointestinal irritation. In such cases, antiemetic medications like ondansetron or domperidone might be prescribed to control vomiting episodes, helping to maintain hydration and nutritional status. Again, these are supportive interventions addressing symptoms rather than root causes.

Loose Motion (Diarrhea):

Teething can sometimes coincide with changes in bowel habits, including mild diarrhea, often due to increased saliva ingestion affecting the gut flora and motility. To manage this, prebiotics and probiotics are frequently administered. These supplements aim to restore a healthy balance of intestinal microflora, supporting digestion and stool consistency. This approach is preventive and supportive but not curative for the teething process itself.

Cough:

If coughing develops due to excessive drooling or mild respiratory irritation, bronchodilators may occasionally be prescribed when the cough becomes persistent or troublesome. These medications relax airway muscles and help ease breathing. However, care must be taken to ensure the cough is not due to an underlying infection requiring a different treatment approach.

Cold Symptoms:

Cold-like symptoms such as nasal congestion or a runny nose, common during teething because infants frequently place hands or objects in their mouths, may be managed with nasal decongestants or saline nasal drops. These help clear the nasal passages and improve breathing comfort. Again, these treatments address symptoms but do not influence the natural course of tooth eruption.

Ayurvedic Treatment of Dantauttapti (Tooth Eruption)

In Ayurveda, teething is more than just teeth pushing through gums; it's a complex physiological and doshic phenomenon involving the subtle interplay of Vata and Kapha doshas. These two doshas predominantly aggravate during Dantauttapti, manifesting as pain, swelling, and other symptoms in infants. Balancing these doshas is the cornerstone of Ayurvedic intervention.

Dosha Imbalance in Teething

Vata Dosha — responsible for movement and nervous system regulation, becomes aggravated due to its natural role in mobilizing the teeth through the gums. This leads to pain, dryness, and irritability.

Kapha Dosha — responsible for structure and lubrication, when aggravated, causes swelling, increased mucus, and heaviness around the gum area.

To alleviate these doshic imbalances, Ayurvedic therapies adopt Vatahara (Vata pacifying) and Kaphaghna (Kapha reducing) strategies to soothe the gums, reduce inflammation, and promote smooth tooth eruption.

Key Ayurvedic Therapeutic Approaches**Deepana and Pachana (Stimulating Digestion and Metabolism)**

Since poor digestion (Agni mandya) is often a root cause of aggravated doshas and toxin accumulation (Ama), Ayurveda emphasizes rekindling digestive fire through Deepana (appetizer) and Pachana (digestive) therapies.

Herbal formulations containing Pippali (Piper longum), dry ginger, and other digestive spices are used to optimize digestion, which indirectly helps reduce systemic doshic imbalance affecting the gums.

Anuloman Pratisarana (External Application of Medicinal Powders/Pastes)

This gentle, external therapy involves the application of herbal powders or pastes on the infant's gums to ease pain and inflammation, facilitating tooth eruption.

Classic ingredients used include:

Pippali (Piper longum): A warming herb with analgesic and antimicrobial properties, helping soothe gum pain and prevent infections.

Dhataki Pushpa (Woodfordia fruticosa flowers): Known for its anti-inflammatory and wound-healing qualities.

These herbs are often mixed with Madhu (honey) for enhanced healing and smooth application, ensuring the infant tolerates the treatment well.

Special Classical Remedies

The Astanga Sangraha recommends an unusual but noteworthy remedy involving a mixture of dry meat from lava (a small animal) and Tittara (quail bird) blended with honey, applied locally on the gums. While seemingly exotic, this reflects Ayurveda's deep reliance on animal-based rasayanas for strengthening tissues and promoting healing in delicate stages of development.

Ayurvedic Herbal Formulations Used in Teething

Churnas (Powders):

These are herbal powders designed to be administered orally or applied topically to reduce symptoms of teething disorders:

Balachatrabhadrika Churna: Traditionally used to balance Vata and Kapha doshas, strengthen tissues, and support digestion, making it beneficial during teething.

Mustadi Churna: Contains ingredients like Musta (*Cyperus rotundus*), which has anti-inflammatory and digestive benefits, calming the gut and reducing systemic disturbances.

Rajanayadi Churna: A potent formulation known for its Vata-pacifying and rejuvenating properties, supporting smooth tooth eruption and overall oral health.

Rasa Aushadhi (Mercury-based preparations):

Dantodabhegadantak Rasa: A classical mercury-based formulation used in low doses under strict supervision, believed to reduce pain and inflammation associated with teething disorders. These preparations require expert handling due to their potent nature but have been traditionally valued for their fast-acting relief.

Ghritas (Medicated Ghee):

Medicated ghee is highly prized in Ayurveda for its ability to penetrate tissues and balance doshas gently and deeply:

Kumara Kalyan Ghrita: Known to pacify Vata and support healthy tissue growth, making it suitable for teething infants.

Kashyapa Ghrita: Named after the sage Kashyapa, associated with pediatrics and child health, this ghrita supports overall growth and digestive strength during infancy.

Dantodabhadajanya Ghrita: Specifically indicated for dental and gum disorders related to teething, it soothes inflamed gums, strengthens oral tissues, and reduces pain.

Conclusion

Ayurveda offers a profoundly detailed and nuanced perspective on the primary eruption of teeth, weaving together anatomy, physiology, and pathology into a cohesive understanding that transcends mere biological events. The ancient texts do not stop at describing tooth emergence; they delve into the variations in number, form, and disorders—recognizing that no two sets of teeth erupt identically, much like no two lives unfold the same way. These time-honored insights resonate deeply with modern dental science, allowing for a complementary dialogue between tradition and contemporary practice.

The symptoms accompanying teething, often distressing for both infants and caretakers, find gentle yet effective relief through Ayurvedic therapies. Whether it's through herbal powders, medicated ghritas, or specific external applications, Ayurveda seeks not only to soothe discomfort but to harmonize the doshas involved, potentially easing and even hastening the natural progression of teething. This holistic approach respects the infant's innate rhythms rather than suppressing symptoms with symptomatic quick fixes.

Yet, the journey toward full integration into mainstream medicine demands a bridge of scientific validation. Empirical research and rigorous clinical trials would provide the much-needed evidence base, transforming Ayurvedic dentistry from revered tradition to universally recognized practice. Such a synthesis of ancient wisdom and modern science could redefine pediatric oral care—offering not just symptomatic management but true health promotion rooted in the harmony of body, mind, and

environment.

In embracing both the past and the future, Ayurveda invites us to view teething not merely as a physical milestone but as a sacred rite of passage—a delicate unfolding of life's first teeth, nurtured by nature and guided by timeless healing.

References

1. Vriddha jeevaka, Kashyapa Samhitha, Chakhambha visvabharati, Varanasi, Reprint 2002, suthra sthana, Chapter 20.
2. Vriddha jeevaka, Kashyapa Samhitha, Chakhambha visvabharati, Varanasi, Reprint 2002, suthra sthana, Chapter 20, Verse 4.
3. <https://en.wikipedia.org/wiki/Teething>.
4. Vagbhata. Ashtanga Sangraha. In: Sharma DS, editor. Uttarsthan chapter 2. 5th ed. Varanasi: Choukambha Sanskrit Series, 2019; 639
5. Marks, SC. The basic and applied biology of tooth eruption. Conn Tiss Res. 1995; 32(1-4): 149-57.
6. Wise GE, Marks SC, Zhao L. Effect of CSF-1 on in vivo expression of c-fos in the dental follicle during tooth eruption. Eur J Oral Sci. 1998; 106 (Suppl. 1): 397-400.
7. Macknin ML, Piedmonte M, Jacobs J, Skibinski C. Symptoms associated with infant teething: a prospective study. Pediatrics 2000; 105:747±752.
8. Macknin ML, Piedmonte M, Jacobs J, Skibinski C. Symptoms associated with infant teething: a prospective study. Pediatrics 2000; 105:747±752.
9. Tewari P.V. Kashyapa Samhita , Reprint. ed. Varanasi: Chowkhamba Vishwabharti Oriental Publications; 2008. Sutrasthana 20/7.
10. Chakradata of chakrapanidatta, English translation by dr. G. Prabhakara rao, Chaukhambha Orientalia Varanasi.
11. Ashtang-Hridaya-Volume 1, Chaukhambha Krishandas Academy Varanasi 40/2.
12. Bhaishajya Ratnavali, Sri Govindha Das, Chaukhambha Sanskrit Series, Balrogaadhikar 160-162.