



## AYURVEDIC APPROACH TO MUKHAPAKA IN CHILDREN: A CASE REPORT

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**ABSTRACT** Mukhapaka is a common oral disorder in children characterized by painful ulcers in the oral cavity, leading to difficulty in eating, drinking, and speaking. It can be correlated with recurrent aphthous stomatitis in modern medicine. Ayurveda describes several local treatment modalities for the management of Mukhapaka, among which Pratisarana is considered effective for promoting ulcer healing and relieving symptoms. The present case report describes the management of Mukhapaka in a 7-year-old child using Darvyadi Churna Pratisarana, mixed with honey, for 7 days. Clinical improvement was assessed based on reduction in pain, burning sensation, excessive salivation, ulcer number, and size. Marked improvement in all symptoms was observed by the end of treatment, with no adverse effects. This case suggests that Darvyadi Churna Pratisarana may be a safe and effective local therapeutic approach for the management of Mukhapaka in children.

**KEYWORDS :** Mukhapaka, Darvyadi Churna, Pratisarana, Ayurveda.

### INTRODUCTION:

*Ayurveda*, the traditional system of medicine in India, emphasizes maintaining health through the prevention and treatment of disease using a holistic approach grounded in the balance of *Doshas*, *Dhatu*s, and *Malas*. It comprises eight specialized branches, i.e., *Ashtanga Ayurveda*, each dealing with a specific area of healthcare. Among these, *Kaumarabhritya* is the branch dedicated to the promotion of health and management of diseases in infants, children, and adolescents. It focuses not only on the treatment of pediatric disorders but also on ensuring proper growth, development, nutrition, and disease prevention.

*Mukhapaka* is a common disorder affecting the oral cavity in children and is characterized by painful ulcers involving the oral mucosa. It can be correlated with recurrent aphthous stomatitis or minor oral ulcers described in modern medicine. The condition causes pain, a burning sensation, difficulty in eating, drinking, and speaking, thereby affecting the child's nutrition and quality of life. Recurrent aphthous stomatitis has been reported to affect up to 25% of individuals, with its initial presentation commonly occurring during childhood or adolescence.<sup>1</sup>

According to *Ayurveda*, *Mukhapaka* is predominantly a *Pittaja Nanatmaja Vikara*<sup>2</sup> resulting from the vitiation of *Pitta Dosh*a, often associated with *Kapha* involvement.

Modern management of stomatitis mainly aims at symptomatic relief through topical analgesics, antiseptic mouthwashes, corticosteroids, vitamin supplementation, and anti-inflammatory agents.<sup>3</sup> Although these measures reduce discomfort, they may not always prevent recurrence or promote comprehensive healing. In contrast, *Ayurveda* advocates a holistic approach by correcting the underlying dosha imbalance through appropriate diet, lifestyle modifications, and local therapeutic procedures. Among these, *Pratisarana*<sup>4</sup> (local application of medicated powder or paste) is an important treatment modality for *Mukhapaka*. *Darvyadi Churna*<sup>5</sup> has anti-inflammatory, antimicrobial, and wound-healing properties and may help relieve symptoms and promote ulcer healing. Therefore, the present case report highlights the management of *Mukhapaka* in a 7-year-old child using *Darvyadi Churna Pratisarana*..

### MATERIALS AND METHODS:

**Case report:** A 7-year-old male child reported to the OP of the Department of Kaumarabhritya, Alva's Ayurveda Medical College and Hospital, Moodubidri, with the classical signs and symptoms of *Mukhapaka*.

### Chief complaints:

A 7-year-old male child was brought to the OPD with complaints of painful mouth ulcers associated with a burning sensation and excessive salivation for the past 5 days.

**History of presenting complaints:** The child was apparently healthy 5 days before presentation, when he developed painful ulcers in the oral cavity. The ulcers were associated with a burning sensation, which was aggravated while consuming hot and spicy foods, resulting in

difficulty in eating. The child also complained of excessive salivation. There was no history of fever or trauma to the oral cavity. As the symptoms persisted without significant relief, the child was brought to the Outpatient Department of Kaumarabhritya, Alva's Ayurveda Medical College and Hospital, Moodubidri, for further evaluation and management

**History of previous illness:** History of recurrent oral ulcers (4 episodes in the last 1 year). No significant past medical or surgical history.

### Personal history:

|             |                           |
|-------------|---------------------------|
| Bowel       | Formed, 1-2 times per day |
| Appetite    | Reduced                   |
| Micturition | 3-4 times per day         |
| Sleep       | sound                     |
| Habit       | none                      |

### Vitals-

Pulse rate-80b/m  
Respiratory rate- 18 b/m  
Temperature- 98.6°F  
Weight-26 Kg  
Height-52cm

### Ashtasthana pareeksha:

|         |            |
|---------|------------|
| Nadi    | Kapha-vata |
| Mutra   | Prakruta   |
| Mala    | Abaddha    |
| Jihwa   | Lipta      |
| Shabda  | Spashta    |
| Sparsha | Prakruta   |
| Drik    | Prakruta   |
| Akrti   | Madhyama   |

### Dashavidha pareeksha:

|           |                                  |
|-----------|----------------------------------|
| Prakriti  | Kapha Pradhana vata              |
| Vikriti   | Pitta pradhana tridosha vaigunya |
| Sara      | Madhyama                         |
| Satmya    | Sarvarasa abhyasa                |
| Samhanana | Madhyama                         |
| Pramana   | Madhyama                         |
| Satva     | Madhyama                         |
| Agnibala  | Manda                            |
| Dehabala  | Pravara                          |
| Vaya      | Bala                             |

### Systemic examination:

CNS- Conscious, oriented  
CVS- S1S2+  
RS- AEBE/NVBS  
P/A- Soft, non-tender

### Local Examination: (Oral cavity examination)

A solitary ulcer measuring approximately 2 mm in diameter was observed on the inner surface of the lower lip. The ulcer was reddish in colour with mild surrounding erythema. Tender on touch, with no bleeding or any discharge.

#### Sampatti ghataka:

|                 |                                |
|-----------------|--------------------------------|
| Dosha           | Pitta- pradhana tridosha       |
| Dushya          | Rasa, rakta, mamsa             |
| Agni            | Jataragni mandya               |
| Ama             | Jataragni janya                |
| Sratas          | Rasavaha, raktavaha, mamsavaha |
| Srotodushti     | Atipravritti                   |
| Rogamarga       | Abhyantara                     |
| Udhhavasthanana | Amashaya                       |
| Vyakhyasthanana | Oshta                          |
| Sadhyasadyata   | Sadhyas                        |

#### Therapeutic intervention:

दार्वीयचूर्णमयाजातीपत्रक्षौद्रैस्तथा परम् / ( च. द. 64/52 )

| Drug            | Mode of usage | Dose                             | Anupana | Duration |
|-----------------|---------------|----------------------------------|---------|----------|
| Darvyadi churna | Pratisarana   | 2 g/ thrice a day<br>Before food | Madhu   | 7 days   |

#### Diagnosis Assessment:

| Symptoms             | 0 <sup>th</sup> day | 3 <sup>rd</sup> day | 7 <sup>th</sup> day | 14 <sup>th</sup> day |
|----------------------|---------------------|---------------------|---------------------|----------------------|
| No. of ulcer         | 1                   | 1                   | 0                   | 0                    |
| Size of ulcer        | 2mm                 | 1mm                 | 0                   | 0                    |
| Excessive salivation | 1                   | 0                   | 0                   | 0                    |
| VAS Scale            | 6                   | 4                   | 0                   | 0                    |
| Burning sensation    | 2                   | 1                   | 0                   | 0                    |

#### RESULTS:

The patient showed gradual clinical improvement after treatment. The ulcer size reduced from 2 mm to 1 mm by the 3rd day and healed completely by the 7th day. Pain (VAS score) decreased from 6 to 4 on the 3rd day and was completely relieved by the 7th day. Excessive salivation resolved by the 3rd day, and the burning sensation gradually subsided, with complete relief by the 7th day. No recurrence was observed during the 14th-day follow-up.

#### DISCUSSION:

*Mukhapaka* is predominantly a *Pitta-Kapha* predominant disorder characterized by painful ulceration of the oral mucosa associated with a burning sensation, difficulty in mastication, and discomfort during speech. In children, improper dietary habits, intake of spicy and junk foods, poor oral hygiene, and nutritional deficiencies are considered important contributing factors. The present case of a 7-year-old male child presented with a painful oral ulcer over the lower lip, causing discomfort while eating. Based on the clinical features and Ayurvedic assessment, the condition was diagnosed as *Mukhapaka* and managed with *Darvyadi Churna Pratisarana*.

The observed clinical improvement may be attributed to the synergistic action of the ingredients of *Darvyadi Churna*, which possess *Pittashamaka*, *Shothahara*, *Vedanasthapana*, *Krimighna*, and *Vranaropana* properties. These properties help pacify the aggravated *Pitta* and *Kapha doshas*, reduce inflammation, alleviate pain, control microbial colonization, and promote healing of the ulcerated mucosa.

*Daruharidra* (*Berberis aristata*), one of the principal ingredients of the formulation, possesses *Pitta-Kapha shamaka*, *Raktashodhaka*, and *Krimighna* properties. Its major bioactive alkaloid, berberine, exhibits potent anti-inflammatory, antimicrobial, antioxidant, and wound-healing activities. Berberine suppresses inflammatory mediators, reduces oxidative stress, inhibits the growth of pathogenic microorganisms, and promotes epithelial regeneration. Other phytoconstituents, including palmatine, jatrorrhizine, flavonoids, phenolic compounds, and tannins, further contribute through their antimicrobial, cytoprotective, antioxidant, and astringent actions, thereby reducing pain, inflammation, and tissue damage while accelerating ulcer healing.<sup>6,7</sup>

*Yashtimadhu* (*Glycyrrhiza glabra*), owing to its *Sheeta Veerya*, *Shothahara*, and *Vranaropana* properties, provides a soothing effect on the inflamed oral mucosa. Glycyrrhizin, its principal bioactive constituent, inhibits inflammatory cytokines and prostaglandin synthesis, thereby reducing pain, erythema, and edema. Glycyrrhetic acid promotes epithelial regeneration, while glabridin, liquiritin, isoliquiritigenin, and other flavonoids exert antioxidant, antimicrobial, and immunomodulatory effects, facilitating faster mucosal repair.<sup>8,9</sup>

*Haritaki* (*Terminalia chebula*), described as *Tridosha Shamaka* and *Vranahara*, contains chebulagic acid, chebulinic acid, gallic acid, ellagic acid, tannins, and flavonoids. These phytoconstituents exhibit anti-inflammatory, antioxidant, and antimicrobial activities. The tannins provide an astringent effect by forming a protective layer over the ulcer surface, reducing local irritation and promoting wound contraction, while phenolic compounds enhance tissue regeneration and protect against oxidative injury.<sup>10,11</sup>

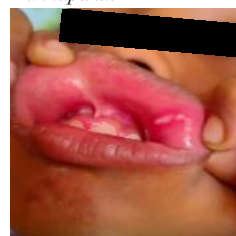
*Jatipatra* (*Jasminum grandiflorum*), traditionally indicated in *Mukharoga*, possesses *Shothahara* and *Vrananashaka* properties. It contains oleuropein, quercetin, rutin, ursolic acid, oleanolic acid, flavonoids, and phenolic compounds that exhibit anti-inflammatory, antioxidant, antimicrobial, and wound-healing activities. These constituents help reduce inflammatory mediators, improve epithelial regeneration, prevent secondary infection, and facilitate early healing of the oral ulcer.<sup>12,13</sup>

*Madhu* (honey), used as the vehicle for *Pratisarana*, acts as a *Yogavahi*<sup>14</sup>, enhancing the local bioavailability of the herbal ingredients. Its *Ropana* and *Prasadana* properties, along with its well-established antimicrobial, anti-inflammatory, and tissue-healing effects, help maintain a moist wound environment, reduce microbial contamination, and promote rapid epithelialization of the ulcer.

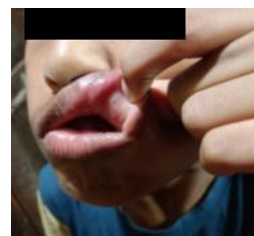
*Pratisarana* allows direct application of the medicated formulation over the affected mucosa, ensuring prolonged local contact and targeted therapeutic action. This local mode of administration facilitates effective delivery of the phytoconstituents to the ulcer surface, minimizes local inflammation, relieves pain and burning sensation, and promotes faster healing.

#### CONCLUSION:

*Darvyadi Churna Pratisarana* demonstrated marked clinical improvement in the management of *Mukhapaka* in this 7-year-old child by effectively reducing pain, burning sensation, excessive salivation, and promoting complete ulcer healing. The therapeutic effect can be attributed to the synergistic action of its ingredients possessing *Pittashamaka*, *Shothahara*, *Vedanasthapana*, *Krimighna*, and *Vranaropana* properties, making it a promising topical therapy for *Mukhapaka*.



Before treatment



After treatment

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