



## EXPLORING MUKHAROGA: THE ORAL SIGNS OF SYSTEMIC DISEASES

Dr. Roshini R.\*<sup>1</sup> and Dr. Sujathamma K.<sup>2</sup>

<sup>1</sup>Post Graduate Scholar, Department of Shalaky Tantra, Sri Kalabyraveswara Swamy Ayurvedic Medical College, Hospital and Research Centre, Bangalore.

<sup>2</sup>HOD and Professor, Department of Shalaky Tantra, Sri Kalabyraveswara Swamy Ayurvedic Medical College, Hospital and Research Centre, Bangalore.



\*Corresponding Author: Dr. Roshini R.

Post Graduate Scholar, Department of Shalaky Tantra, Sri Kalabyraveswara Swamy Ayurvedic Medical College, Hospital and Research Centre, Bangalore.

Article Received on 20/05/2024

Article Revised on 10/06/2024

Article Accepted on 01/07/2024

### ABSTRACT

Oral manifestations of systemic diseases serve as potential indicators for a diverse range of conditions. The oral cavity, truly a mirror reflecting the body's overall health, unveils disease-specific manifestations that should raise suspicion for attentive clinicians. Given that oral manifestations can accompany various systemic diseases, their accurate recognition is crucial for proper diagnosis, referral, and effective patient care. This article enumerates multiple entities involving different areas of the oral cavity, including the soft palate, hard palate, tongue, gingiva, oral mucosa, dentition, periodontium, and salivary gland tissue. While not exhaustive, the authors emphasize lesions or conditions directly linked to common systemic diseases, aiming to offer valuable insights for physicians, dentists, and clinicians in otolaryngologic practice.

**KEYWORDS:** Mukha Roga, oral manifestations, systemic diseases.

### INTRODUCTION

The Oral cavity i.e. Mukha constituting one of the nine Bahirmukha srotas, holds significant importance as one of the vital parts of the Urdhwajatru. Being the gateway of the alimentary canal, it reflects the body's overall health. According to Yogaratnakara, Mukha is defined as "ओष्ठौ च दन्तमूलानि दन्तजिह्वा च तालु च। गलो मुखादद सकलं सप्ताङ्गं मुखमुच्यते॥". Various ailments affect the Mukha and its components, making it an early warning system for clinicians in establishing definitive diagnoses.

While Mukha Roga is commonly associated with oral health, it is crucial to acknowledge that these disorders can also serve as symptoms or indicators of underlying systemic conditions. The lips, oral mucosa, tongue, gingiva, dentition, periodontium, salivary glands, facial skeleton, and extraoral skin can all show manifestations such as inflammation, infection, discoloration, decreased salivary flow, dental caries, and bleeding may point to underlying systemic problems. Neglecting these oral signs without a comprehensive examination of the oral mucosa increases the risk of delayed diagnosis or misdiagnosis. The pathway for oral infection involves microorganisms from the oral cavity enters the bloodstream due to inadequate oral hygiene, minor abrasions, or trauma during eating, brushing, and flossing. Also, self-inflicted injuries such as biting the

tongue or lips, as well as the use of toothpicks, can facilitate this entry. Moreover, the inflammatory response triggered by periodontal diseases may worsen pre-existing systemic conditions. These mechanisms may involve immune responses, the presence of pathogenic microorganisms, and metabolic imbalances. By delving into these diverse manifestations, including autoimmune diseases, nutritional deficiencies, hormonal imbalances, and systemic infections, understanding these intricate connections aids in early diagnosis, the development of therapeutic interventions, and the prevention of both oral and systemic diseases. This exploration seeks to illuminate the underlying mechanisms contributing to the manifestation of Mukha Roga in systemic disorders.

The clinical examination of the oral cavity involves both visual inspection and palpation of its various anatomical structures. Visual inspection is conducted to identify any abnormalities such as mucosal inflammations, infections, discoloration, lumps, ulcerations, loose teeth, dental caries, lymph node enlargement, and hemorrhage. Following visual inspection, palpation is performed on any suspected areas to assess characteristics such as consistency, induration, tenderness, mobility of masses, periosteal thickening, and the depth of lesions.

### MATERIALS AND METHODS

The relevant literature is gathered from classical

Ayurvedic texts, a review of contemporary textbooks, a focus on journals, articles, various dissertations, internet resources, and previous research papers.

## RESULTS

### MUKHAGATA LAKSHANA IN SROTOVIKARAS

Vikara	lakshana	Reference
<b>Pranavaha srotovikara</b>		
Gambheera hikka	Shushka oshta kanta jhiwaasya	Su.Utt.50/13
Urdhwa shwasa	Shushkaasyo	C.Chi.17/49
Chinna shwasa	Shushkaasyo	C.Chi.17/54
<b>Udakavaha srotovikara</b>		
Trishna	Mukhashosha Thalu oshta kanta jhiwa karkashatam Jhiwa nirgama	C.Chi.22/9-10
Vataja trishna	Shushkasyata Virasam cha vaktram	Su.Utt.48/8
Pittaja trishna	Mukha tiktata	Su.Utt.48/9
Kaphaja trishna	Madhuraasyta Kanta upalepa Mukha pichilatwam	Su.Utt.48/10-11
<b>Annavaha srotovikara</b>		
Grahani	Vairasya Praseka	C.Chi.15/53
Vataja grahani	Kantaasya shosha Vairasya	C.Chi.15/61-62
Kaphaja grahani	Aasya upadeha Aasya madhurya	C.Chi.15/68
Amlapitta	Kapha liptata Praseka Kanta daha Mukha madhurya	M.Ni 51/8-12
<b>Rasavaha srotovikara</b>		
Vataja Pandu	Aasya vairasya	C.S.Chi.16/18
Pittaja pandu	Katukaasya Aasya dourgandhya	C.S.Chi.16/21-22
Kaphaja pandu	Praseka Madhurassyta	C.S.Chi.16/24-25
Amavata	Praseka Vairasya	M.Ni 24/9
Hridroga	Aasya vairasya	C.S.Chi.26/78
Pittaja hridroga	Tiktata vakra Shosho mukhasya	C.S.Su.17/33 Su.Utt.43/7
Jwara	Mukha vairasya Dantaharsha	C.Ni.1/33
Vataja jwara	Mukha thaluk anta shosha Kashayaasyata Hanvoscha Praseka Dantahrasha	C.Ni.1/21
Pitta jwara	Katukaasyata Mukha kanta oshta talu paka	C.Chi.3/24
Kapha jwara	Sleshma praseka Mukha maadhurya	C.Chi.3/27
Vishakruta jwara	Shyavaasyata	Su.Utt.39/76
Ama jwara	Lalapraseka Virasam mukham	C.Chi.3/136
<b>Raktavaha srotovikara</b>		
Kumbha kamala	Sarakta mukha	C.S.Chi.16/38
Koshtashakaashraya kamala	Peetha mukha	C.S.Chi.16/36

Raktaja daha	Lohagandhaangavadana	Su.Utt.47/68
Trishnanirodhaja daha	Samshushkagala talu oshta Jhiwam nishkrushya	Su.Utt.47/71
<b>Medhovaha srotovikara</b>		
Prameha	Maadhuryaasyasya Mukha taluk anta shosha Talu gala jhiwa danteshu mala utpatti	C.Ni.4/47 Su.Ni.6/5

<b>Vata vyadhi</b>		
Ardita	Chibukadantanam Sankochayati vakram cha jhimam karoti Dantaschalanti	Su.Ni.1/71
Amashayagata vata	Kantaasya shosha	C.Chi.28/28
Hanustambha	Vivrutaasyam Samvrutavakratam	C.Chi.28/49
Jhiwastambha	Jhiwa stambhayate	A.H.Ni.15/31

There is also a reference of mukhagata lakshana in visha rogas i.e. dantaharsha galagrahamphena in sthavara visha samanya lakshana (C.Chi.23/16) and vakradantaadipeetata, tiktavakrathvam in mandalina sarpa damsha lakshana(A.S.U.41/37).

## ORAL MANIFESTATION OF SYSTEMIC DISEASES

### INFECTIVE DISEASES

#### Bacterial Infections

##### Syphilis

Caused by the bacterium *Treponema pallidum*, initially enters the skin and mucous membranes through abrasions. It then travels via the lymphatic system to regional lymph nodes and spreads throughout the body via the bloodstream. In primary syphilis, the lips, tongue, buccal mucosa, and tonsils are commonly affected. A characteristic feature is the presence of an oral chancre—a painless ulcer with a smooth surface, raised borders, and an indurated margin. Secondary syphilis presents with various oral signs and symptoms, including cheilitis (syphilitic perleche), greyish ulcerated lesions on the palate, mucosa, and tongue, erosion of the tongue with flattened papillae, and hyperemia and inflammation of the pharynx and soft palate. Tertiary syphilis is characterized by the formation of gummas—deep, punched-out ulcers that involve the hard palate, tonsils, and tongue. Luetic glossitis may also be observed. Congenital syphilis manifests with specific dental abnormalities such as mulberry molars, a high-arched palate, a short mandible, and Hutchinson teeth.

##### Leprosy

*Mycobacterium leprae* thrives at temperatures lower than body temperature, facilitating its multiplication. Nasal lesions causing air flow obstruction result in oral breathing, lowering intra-oral temperatures, especially in anterior areas, which favors bacillus harboring. Oral signs and symptoms include lepromas and gingival hyperplasia, along with enamel hypoplasia.

##### Tuberculosis

Oral tissues become host to tuberculosis organisms via the hematogenous route, leading to submucosal proliferation and mucosal ulceration. Oral TB lesions are rare, accounting for only 0.05-5% of total cases. Affected areas typically include the dorsum of the tongue, lips, palate, and tonsils. Oral TB lesions present as multiple, painful ulcers with irregular, undermined borders, covered by gray-yellowish exudate, surrounded by inflamed and indurated tissue. Gingival enlargement may also occur. Submandibular and cervical lymph nodes may become palpable. Granulomatous cheilitis is a rare manifestation.

##### Scarlet fever

Caused by group A streptococcus, scarlet fever spreads through respiratory droplets. Oral manifestations include congested and fiery red mucosa, enlarged uvula and tonsils with erythema, and a tongue resembling a strawberry or raspberry.

##### Viral Infections

##### Herpes simplex

Viral replication occurs in epithelial tissue, establishing dormancy in sensory neurons and periodically reactivating as localized recurrent lesions. The prevalence of HSV infection increases with age, with rates as high as 90%. Oral signs and symptoms include vesicular ulcers on the lips, buccal mucosa, gingiva, and hard palate, along with painful ulcers and acute marginal gingivitis.

##### Varicella

The Varicella zoster virus, a double-stranded DNA virus, infects mucoepithelial cells and is transmitted through inhalation of infected respiratory droplets or contact with lesions. Oral lesions are typically seen in severe infections. Oral signs and symptoms involve vesicular lesions on the tongue, palate, gingiva, and buccal mucosa, which are usually not painful. In severe cases, vesicular lesions rupture to form ulcers.

**HIV**

HIV causes immune system dysfunction upon entry into the human body, leading to the destruction of helper T cells. Oral manifestations occur in 30-80% of HIV-infected individuals. Oral signs and symptoms include oral hairy leukoplakia, aphthous ulcers, immune thrombocytopenic purpura, diffuse enlargement of salivary glands with xerostomia, and Kaposi's sarcoma.

**Measles**

Caused by the Morbillivirus, measles spreads through respiratory droplets over short distances. Oral signs and symptoms include Koplik's spots, small spotty exanthematous lesions on the buccal mucosa.

**Rubella**

Rubella spreads via aerosolized nasopharyngeal secretions and infects the respiratory tract before disseminating to multiple organs through the lymphatic system. Oral signs and symptoms include Forchheimer spots, small red macules or petechiae on the soft palate.

**Mumps**

Once transmitted, the virus replicates in the nasopharyngeal mucosa, leading to viremia and spread to other organs. Oral signs and symptoms include painful parotid gland swelling and inflamed Stensen's duct opening.

**Cytomegalovirus Infection**

Viral transmission can occur through blood, genital fluid, breast milk, or saliva. After primary infection, the virus remains dormant in lymphocytes and salivary glands, leading to oral manifestations. Oral signs and symptoms involve painful and punched-out lesions on various oral surfaces, gingivitis, and enlargement of the parotid and submandibular glands.

**Fungal Infections**

Candidiasis presents as curdy white areas on the mucosa that are scrapable. Oral thrush is characterized by creamy, fluffy plaques overlying an erythematous mucosa, typically involving the buccal and labial mucosa, dorsum of the tongue, and palate.

**HEMATOLOGICAL DISORDERS****Iron Deficiency Anemia**

Iron deficiency anemia results from various factors such as insufficient dietary intake, malabsorption of iron, chronic blood loss, hemolysis, or pregnancy. Oral manifestations include mucosal pallor, especially of the gingiva and vermilion border of the lips, angular cheilitis, and atrophic glossitis. The tongue may appear smooth and red and may develop pain and a burning sensation.

**Sickle Cell Anemia**

Sickle cell anemia leads to vaso-occlusive crises within the microcirculation of the dental pulp, resulting in oral manifestations such as pallor and jaundice, particularly

involving the soft palate or floor of the mouth, increased prevalence of dental caries, and mandibular osteomyelitis leading to areas of osteoporosis and erosion followed by osteosclerosis.

**Pernicious Anemia**

Pernicious anemia is a complex disorder involving the blood, immune system, and gastrointestinal tract. Oral signs and symptoms include atrophic or bald tongue, atrophy of the oral mucosa, glossitis, and angular cheilitis.

**Thalassemia**

Thalassemia's oral manifestations are due to extreme compensatory hyperplasia of the bone marrow, resulting in expansion of the marrow cavity. Signs and symptoms include a prominent premaxilla, malalignment of the dentition, and pallor of the mucosa.

**Leukemia**

Leukemia is a neoplastic process that increases circulating immature or abnormal white blood cells, leading to suppression of normal hematopoiesis and deficiency of normal functioning leukocytes. Oral signs and symptoms include gingival hypertrophy and hyperplasia, friable and edematous gingiva, erythematous gingiva, petechiae, ecchymoses on the mucosal surface of the mouth, mucosal ulcers, and hemorrhage.

**Thrombocytopenia**

Thrombocytopenia is characterized by a reduced number of circulating platelets, typically below 150,000/ $\mu$ L. It can occur due to autoimmune destruction, bone marrow infiltration by tumor cells, infection, or adverse drug reactions. Oral signs and symptoms include gingival bleeding, visible petechiae and ecchymoses on the soft palate and buccal mucosa, and purpura and mucocutaneous bleeding resulting in hemorrhagic bullae.

**PULMONARY DISEASES****Bronchial asthma**

Bronchial asthma is associated with various oral signs and symptoms, including geographic tongue, fissured tongue, candidiasis, decreased salivary flow, gingivitis, and an increased incidence of caries and periodontal disease.

**Cystic fibrosis**

In cystic fibrosis, individuals may experience swollen lips, gingivitis, dryness of the mouth, and disorders of the salivary glands.

**Sarcoidosis**

Sarcoidosis presents with multiple, nodular, painless ulcerations of the gingiva, buccal mucosa, labial mucosa, and palate, as well as tumor-like swelling of the salivary glands, swelling of the tongue, and xerostomia.

## GASTROINTESTINAL DISEASES

### Crohn's disease

It is characterized by diffuse swelling of one or both lips with associated angular cheilitis, "cobblestoning" of the buccal mucosa, aphthous ulcers, mucosal tags, tongue and lip fissuring, hyperplastic gingivitis, and staghorn of submandibular ducts.

### Ulcerative colitis

In ulcerative colitis, inflammatory cell infiltrate affects only the mucosa and submucosa, leading to dysregulation of the mucosal immune system. Oral manifestations include aphthous ulcers or superficial hemorrhagic ulcers, angular stomatitis, glossitis, and pyostomatitis vegetans.

### GERD

It occurs when gastric acid is involuntarily projected from the stomach upwards through the esophagus, sometimes reaching the oral cavity. This can result in a reduction of the oral cavity pH below 5.5, causing a burning sensation and mucosal erosion, erosion of tooth structure, halitosis, hypersensitivity, caries, enamel damage, and a yellow appearance of the underlying dentin.

## CARDIOVASCULAR DISEASE

In congestive heart failure, atherosclerosis, and rheumatic heart disease, two biological mechanisms elucidate the relationship between cardiovascular disease and periodontal disease:

1. Bacteria from periodontal disease may enter the circulation and directly contribute to the atheromatous or thrombotic processes.
2. Systemic factors can alter the immune-inflammatory process involved in both periodontal and cardiovascular diseases.

Oral signs and symptoms associated with these conditions include periodontal diseases, gingival hyperplasia, gingival bleeding, hyposalivation, xerostomia, dysphagia, and temporomandibular joint disorder.

## RENAL DISEASE

### Uremic stomatitis

Uremic stomatitis occurs when the intraoral concentration of urea exceeds 30 mmol/L, leading to the development of painful plaques and crusts predominantly on the buccal mucosa, dorsum of the tongue, and floor of the mouth. Symptoms include pain, burning, xerostomia, halitosis, gingival bleeding, dysgeusia (altered taste), and candida infection.

## ENDOCRINE DISORDERS

### Diabetes mellitus

DM is associated with several oral manifestations, including xerostomia, attributed to diminished saliva flow and an increased salivary glucose level, as well as candidiasis, gingivitis, periodontitis, bilateral

enlargement of the parotid gland, burning mouth syndrome, and altered taste.

### Hypothyroidism

This condition manifests with delayed dental eruption, salivary gland enlargement, macroglossia, glossitis, periodontitis, and dysgeusia. On the other hand, hyperthyroidism presents with accelerated dental eruption, caries, periodontitis, and maxillary and mandibular osteoporosis.

### Hypoparathyroidism

It is characterized by signs and symptoms such as pitting enamel hypoplasia, failure of tooth eruption, persistent oral candidiasis, and upper lip twitching.

### Addison's disease

Addison's disease resulting from progressive destruction of the adrenal cortex, presents with "bronzing" hyperpigmentation of the skin and oral mucosa melanosis.

## METABOLIC DISORDERS

### Amyloidosis

It is a rare disease characterized by the deposition of insoluble aggregates of misfolded fibrillary proteins, known as amyloidogenic proteins, within the extracellular matrix of various tissues and organs. It presents with symptoms such as macroglossia, decreased mobility, hyposalivation, submandibular swelling, and tongue enlargement.

### Hemochromatosis

A common form of iron overload disease due to altered iron metabolism, manifests with blue-gray to brown hyperpigmentation of the palate, buccal mucosa, and gingival tissues, regardless of the severity of iron overload. Additionally, iron deposits may be identified in minor salivary glands.

## NEUROLOGIC DISEASES

Alzheimer's disease is associated with poor oral hygiene, which leads to an increased prevalence of dental plaque, dental caries, and gingival bleeding.

## DERMATOLOGIC DISEASES

### Lichen Planus

In lichen planus, particularly reticular lichen planus, characteristic features include Wickham striae, presenting with a reticulate or net-like appearance on the buccal mucosa, tongue, and gingiva.

### Psoriasis

Psoriasis is characterized by signs and symptoms such as angular cheilosis, fissured tongue, and benign migratory glossitis. Lesions involve the lips, buccal mucosa, palate, gingiva, and floor of the mouth, appearing as gray or red-white plaques or silvery-white plaques.

**Acanthosis nigricans**

Acanthosis nigricans commonly affects the tongue and lips, with papillomatous growths involving the dorsum of the tongue, lips, and buccal mucosa, along with gingival enlargement.

**Vitiligo**

Vitiligo presents with depigmentation of the oral mucosa, with the lips being frequently affected, followed by the palate, gingiva, labial and buccal mucosa.

**CONNECTIVE TISSUE DISEASES****Sjogren's syndrome**

In Sjogren's Syndrome, oral manifestations include xerostomia, dry, red, and wrinkled mucosa, difficulty in chewing and mastication, altered taste sensation, increased dental caries, burning sensation of the oral mucosa, fissured tongue, atrophy of papillae, redness of the tongue, cracked and ulcerated lips, and candidiasis.

**Kawasaki disease**

Kawasaki disease is characterized by swelling of papillae on the surface of the tongue (strawberry tongue) and cherry red, swollen, and hemorrhagic lips.

**Systemic lupus erythematosus**

SLE presents with ulcerations, painful petechiae, damage of salivary glands leading to xerostomia, common lichenoid lesions on the palate, gingiva, or buccal mucosa, cheilitis involving the lower lip vermilion, xerostomia leading to an increased risk for candidiasis and periodontal disease.

**Scleroderma**

In scleroderma, manifestations include pursed lips due to constriction of the mouth aperture, pale and rigid mucosa, decreased mobility of the tongue, teleangiectasias, salivary hypofunction, and damage of enamel.

**NUTRITIONAL DISORDER**

VITAMINS (DEFICIENCY / TOXICITY)	ORAL MANIFESTATIONS
Vitamin A (retinol) deficiency	Impaired tooth development in children; oral mucosa is affected with dryness and atrophy, appearance of leukoplakia, angular cheilitis and xerostomia.
Vitamin A (retinol) Toxicity	Cheilitis, gingivitis, impaired healing
Vitamin D deficiency	Developmental anomalies of dentin and enamel, delayed eruption and misalignment of the teeth in the jaws(periodontal attachment), recurrent aphthous stomatitis
Vitamin K deficiency	Most common is gingival bleeding, Prothrombin levels below 35% result in bleeding after tooth brushing and when below 20% result in spontaneous gingival hemorrhages, Submucosal hemorrhage
Vitamin B2 (Riboflavin, Lactoflavin) deficiency	Erythema of pharyngeal and oral mucous membranes, atrophic glossitis with magenta hue, glossodynia, cheilosis, angular cheilitis
Vitamin B3(Niacin) deficiency	Oral mucosa becomes fiery red and painful. Glossitis, stomatitis, burning mouth or tongue ; aphthous like ulcers may appear on tongue and gingiva. Dental caries
Vitamin B6 (pyridoxine) deficiency	atrophic glossitis, cheilosis, angular stomatitis, gingival erythema
Vitamin B9(folic acid) deficiency	Atrophic glossitis with erythema and swelling of the tongue, glossodynia, angular cheilitis, dysphagia
Vitamin B12(cobalamine) deficiency	generalised stomatitis, taste disturbance Red, atrophic, Burning tongue with bald appearance due to loss of filiform papillae, recurrent aphthous stomatitis
Vitamin C deficiency	Inflammation of interdental and Mucosal petechiae, Hemorrhagic gingivitis, Gingival bleeding, Gingival hypertrophy, Loosening or loss of teeth
<b>Minerals</b> Zinc deficiency	Burning mouth syndrome, Recurrent aphthous stomatitis, Perioral or intraoral erosions, Dysgeusia

**POISONOUS CONDITION**

Sulphuric acid poisoning presents with swollen lips, which may appear brown or blackish in color, along with corrosion of the mucous membranes of the mouth and throat, causing immediate burning pain, odynophagia, and dysphagia. Pharyngeal pain and chalky-white teeth are also observed, while the tongue becomes swollen and

black.

Nitric acid poisoning is characterized by yellow discoloration of the crowns of the teeth.

Hydrochloric acid poisoning manifests with pharyngitis and inflammation of the gums, leading to loosening of

teeth.

Mercury poisoning results in an acrid metallic taste, constriction in the throat, and swelling of the mouth and tongue with a greyish-white coating, as well as glossitis and ulcerative gingivitis. Chronic conditions may include gingivitis, excessive salivation, and occasionally a blue line at the junction with the teeth, along with loosening of teeth.

Lead poisoning exhibits a stippled blue line, known as Burtonian line, on the gums in chronic conditions.

Copper poisoning presents with a green line on the gums in chronic conditions.

Iodine poisoning leads to brown staining of the lips and angles of the mouth, while chronic conditions may result in parotid swelling (iodide mumps).

Phosphorus poisoning in chronic conditions manifests with toothache, swelling of the jaw, phossy jaw, loosening of teeth, necrosis of gums, and sequestration of bone in the mandible.

#### General line of treatment

Our Acharyas have outlined several preventive measures in dinacharya, including kavala, gandusha, dantadavana, Jivha Nirlekhana, and mukhaprakshalana. These practices serve as effective preventive measures for various oral health issues.

Additionally, therapeutic procedures such as kavala, gandusha, pratisarana, dhumapana, raktamokshana, and ksharagnikarma are particularly effective when combined with shamanaushadhi in treating oral diseases. These methods aid in disrupting the progression of diseases and promoting overall health.

Shodhana chikitsa is recommended based on individual factors such as vyakthasthana, rogibala, and rogabala, providing personalized treatment approaches.

For recently developed and mild mouth ulcers, sthanika upakramas and the use of sheetha dravya are advised to alleviate symptoms and promote healing.

In cases of reduced immunity leading to oral symptoms, rasayana prayoga is recommended to bolster immunity and address mukhagata lakshanas effectively. These holistic approaches offer comprehensive care for maintaining oral health and overall well-being.

#### DISCUSSION

Oral examination serves as a crucial diagnostic index for identifying systemic manifestations. Many deficiency disorders exhibit their reflections through oral manifestations. In Ayurveda, the examination of the oral cavity constitutes avayava, a vital aspect among the ashtasthana pareeksha. Therapeutically, oral examination

holds significant importance, especially in assessing patients for shamana and shodhana chikitsa.

The impact of poor oral hygiene extends beyond the oral cavity, posing a risk for the initiation of various systemic diseases. Therefore, maintaining Mukhaswasthya is essential for overall health. The oral cavity is a pivotal diagnostic area not only because it contains derivatives of all primary germinal layers and includes tissues not observable elsewhere in the body but also due to its role in diagnosing numerous systemic diseases based on their oral manifestations.

#### CONCLUSIONS

The clinical scenario of oral manifestations in systemic diseases is very wide, common and diverse. This is particularly significant considering the potential for manifestations to arise directly from disease pathology, secondary infiltrative processes, or treatment-related adverse effects. Oral manifestations can often serve as the initial symptoms of many systemic diseases, underscoring the importance of thorough examination and comprehensive history-taking to ensure timely diagnosis and treatment.

When mukhagata lakshanas are secondary to other systemic conditions, special attention should be devoted to addressing the primary disease. Additionally, several of the oral pathologies discussed herein can cause pain and discomfort, negatively impacting the patient's quality of life and leading to inadequate food and water intake. Recognizing and appropriately treating oral manifestations promptly is crucial.

Therefore, oral cavity hygiene should be diligently maintained through all available means to safeguard overall health.

#### REFERENCES

1. Vaidya Jadavji Trikamji Acharya and Narayan Ram Acharya "Kavyathirtha", Sushruta Samhita, with Sri Dalhanacharya teeka, Chaukhambha Surbharati Prakashan, Varanasi, reprint edition, 2017.
2. Vaidya Jadavaji Trikamji Acharya, Charaka Samhita of Agnivesha, Chakrapani Datta's Ayurveda deepika, Chaukhambha Sanskrit Sansthan, Varanasi, Fifth Edition, 2001.
3. Krishna Ramchandra Shastri Navre, Ashtangahridayam of Vagbhata, Arunadatta's Sarvangasundara and Hemadri's Ayurvedarasayana, Krishnadas Academy Varanasi, Edition reprint, 2002.
4. Dhingra.P.L, Dhingra S, Diseases of ear, nose & throat & head and neck surgery, 7 th edition. Reed Elsevier India Pvt. Ltd; New Delhi, 2018.