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A review on *Sarvasara Mukharoga* in Ayurveda w.s.r. Oral Submucous Fibrosis

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ABSTRACT

Introduction: An inflammatory response juxta epithelial, fibroelastic changes in the lamina propria, epithelial atrophy, trismus, and recurrent glossitis attacks are the hallmarks of the subtle chronic disease known as oral submucous fibrosis (OSMF). It is one of the most common premalignant disorders in India. OSMF is gaining popularity these days. A study on OSMF and its management according to Ayurveda values is more in the scientific field because Ayurveda's main focus is on maintaining and promoting health care. In this conceptual paper, OSMF will be highlighted, evaluated, elaborated on, and discussed. **Aim and Objectives:** The aim of the study is to gain a better understanding of OSMF and its relationship to *Sarvasara Mukharoga* in Ayurveda. **Materials and Methods:** The contents of this article are based on modern medicine textbooks as well as *Ayurvedic Samhitas*. Clinical research published in both indexed and non-indexed journals was also consulted to obtain relevant content. **Results:** According to the *Lakshanas* described by *Brihatrayi*, OSMF can be equated symptomatically with the *Sarvasara Mukharoga*. In the event of OSMF, the management of *Sarvasara Mukharoga* should be applied. **Conclusion:** On the basis of signs and symptoms, OSMF can be correlated with *Sarvasara Mukharoga*. Early treatment of OSMF using Ayurvedic medications and the cessation of habits helps in the easy cure of the disease.

Key words: Ayurvedic medicines, Oral Sub Mucous Fibrosis, Premalignant condition, *Sarvasara Mukharoga*.

INTRODUCTION

Oral submucosal fibrosis (OSMF) is a chronic, progressive scarring disease that primarily affects people of Asian descent. The disease was first described by Schwartz with the descriptive term Atrophia

idiopathica (tropica) mucosae oris. In late 1953, Joshi renamed the disease OSMF, alluding to its primarily histological characteristics.^[1] OSMF is an insidious chronic disease affecting any part of the oral cavity and sometimes the pharynx. Although occasionally preceded by and/or associated with vesicle formation, it is always associated with a juxta epithelial inflammatory reaction, which is followed by a fibroelastic change of the lamina propria, with epithelial atrophy leading to stiffness of the oral mucosa and causing trismus and inability to eat.^[2]

The most recent definition describes the characterization, biological behaviour, etiology, and prognosis of OSMF. It's defined as a debilitating, progressive and irreversible collagen metabolic disorder caused by chronic chewing of areca nut and its commercial preparations; affecting the oral mucosa

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and occasionally the pharynx and oesophagus; resulting in mucosal stiffness and functional morbidity; and having a potential risk of malignant transformation.

According to *Acharya Sushruta*, OSMF and *Sarvasara Mukha Roga* (Oral Cavity Diseases) are related in *Ayurveda*. *Mukha Roga* (diseases of the oral cavity) are characterized by symptoms such as mouth discomfort, blanching of the oral mucosa, a burning feeling in the mouth, difficulty opening the mouth, and others.^[3] Some *Mukha Roga* therapies like *Nasya* (nasal medicine), *Kavala* (gargling), and *Gandusha* (oil pulling) are some that can be used for OSMF. In *Sanskrit*, *Ayu* represents life, and *Veda* denotes wisdom. *Ayurveda* is the name of the living science that treats patients holistically. It is among the world's first medical systems.^[4]

According to the World Health Organization (WHO), 70–80 percent of people around the world use *Ayurvedic* medication.^[5] *Ayurvedic* medicine have been practiced in India since ancient times, according to the *Shastra*. *Ayurvedic* treatments can be used to treat a variety of dental problems, such as periodontitis, oral lichen planus (OLP), tooth problems, oral cancer, OSMF, and oral mucosa lesions (OML) etc. Numerous studies have shown the effectiveness of *Ayurvedic* therapies or medications in treating OSMF.^[6]

METHODS

This article's content is based on both my own clinical experiences and a wide range of clinical investigations on OSMF and its management that have been published in indexed and non-indexed journals. Both the *Ayurvedic Samhitas* and their commentaries are explored. Textbooks on modern medicine and *Ayurveda* were used to collect information.

RESULTS AND DISCUSSION

Aetiology of OSMF

Number of *Sarvasara Rogas* According to Various *Acharyas*:

Name of <i>Acharyas</i>	Numbers of <i>Rogas</i>
<i>Sushruta Samhita</i>	3

<i>Ashtanga Hridaya</i>	8
<i>Madhav Nidana</i>	3
<i>Sharangadhara</i>	8
<i>Bhava Prakasha</i>	3
<i>Yoga Ratnakar</i>	3

According to *Acharya Sushruta Vataja*, *Pittaja* and *Kaphaja Sarvasara (Mukharoga)* are the three disorders.^[7]

Acharya Vagbhatta has mentioned *Vataja*, *Pittaja*, *Kaphaja*, *Raktaja* and *Sannipataja Mukharoga* along with *Arbuda*, *Urdhva Guda* and *Pootiasyata*.^[8]

Acharya Sharangadhara has also followed the pattern of *Acharya Vagbhatta*.^[9] *Acharya Bhavamishra*,^[10] *Acharya Madhava*^[11] and *Yogaratanakara's*^[12] classification is similar to *Acharya Sushruta*.

The aetiology of OSMF is unknown. Most of the proposed ideas are derived from existing clinical and epidemiological data. Given the proportion of female patients, the question can be asked whether OSMF is due to the prevalence of habits such as tobacco/nut chewing among women in the study population. Most studies on OSMF have emphasized only the role of irritant substances acting locally on the oral mucosa. An equally important second aspect which needs to be considered is the pre-conditioning of the oral mucosa by a prolonged, chronic deficiency of iron and/or vitamin B complex. Such conditions are much more commonly seen among Indian females than males, which may explain the higher incidence of OSMF among females. Other fibrotic diseases related to the basal lamina and involving underlying muscles are known, e.g., endomyocardial fibrosis.

The various hypotheses proposed so far suggest that the cause of this disease is multifactorial. In addition to the role of local irritants such as capsaicin,^[13] tobacco, betel nuts, hot and spicy foods, and alcohol, the geographic and ethnic distribution of OSMF suggests an underlying systemic predisposition. Among the systemic factors, the main ones incriminated are

chronic iron and vitamin B-complex deficiency, anaemia, and a genetic predisposition to the disease.

Nidana of Mukharoga

Aharajanya Nidana

Nidana	A.S.,A.H. ^[15]	K.S. ^[16]	B.P. ^[17]	M.N. ^[11]	Y.R. ^[14]
Matsya Sevana	+	-	+	+	-
Atimamsa Sevana	+	-	-	-	-
Balamulaka	+	-	-	-	-
Masha	+	-	-	-	+
Dadhi	+	-	-	-	-
Kshira	+	-	-	-	-
Ikshu	+	-	-	-	-
Shukta	+	-	-	-	-
Phanita	+	-	-	-	-
Guru, Madhura, Sheeta Ruksha Ahara	+	+	-	-	-
Ati sheetambu Sevana	-	+	-	-	-

Viharajanya Nidana

Nidana	A.S., A.H.	K.S.	B.P.	M.N.	Y.R.
Avak Shayya	+	-	-	-	-
Ati Parshwa Shayana	-	+	-	-	-
Anuchita Dhuma, Chardana, Siravedha	+	-	-	-	-

Vega Vidharana	-	+	-	-	-
Snana after Guru Ahara Sevana or in Ajirna	+	+	-	-	-
Avruta Mukha Shayana	-	+	-	-	-
Danta Dhavana Dwesha	+	-	-	-	-
Anuchita Gandusha	+	-	-	-	-

Synonyms

- Submucous fibrosis of the palate and pillars (Joshi, 1952).
- Diffuse oral submucous fibrosis (Lal 1953).
- Idiopathic scleroderma of mouth (Su, 1954).
- Submucous fibrosis of the palate (Sirsat and Khanolkar, 1957, 1960, 1962).
- Submucous fibrosis of palate and cheek (Desa, 1957).
- Idiopathic palatal fibrosis (Rao, 1962). Juxta epithelial fibrosis (Pindborg 1964)
- Oral submucous fibrosis (Pindborg and Sirsat, 1966).
- Subepithelial fibrosis (Goleria, 1970).
- Idiopathic oral fibrosis (Krishnamoorthy, 1970).

Clinical Features

The symptoms of OSMF are:

- Burning sensation and blanching of oral mucosa.
- Moderate limit of mouth opening.
- Bud shaped or shrunken ovula.
- Depapilated tongue and ulceration on tongue.
- Blister or marble like appearance on soft palate and inflammation in oral mucosa occurs.

- Mobility of tongue and soft palate decreases.
- Excessive salivation and bad breath.

Symptoms

Table showing correlation between clinical features of OSMF according to Modern and predominant *Dosha* according to *Ayurveda*.

Symptoms/Signs	Ayurvedic Lakshana	Dominant Dosha
Inability to open the mouth	<i>Mukhasankocha / Kruchchhenvivrunoti Mukham</i>	<i>Vata</i>
Burning sensation in Mouth	<i>Mukhadaha</i>	<i>Pitta</i>
Intolerance to spicy food	<i>Katurasa Ashishnuta</i>	<i>Pitta</i>
Dryness of mouth	<i>Mukhashosha</i>	<i>Vata</i>
Decreased/Defective gustatory Sensation	<i>Alparasagyata/Virasyagata</i>	<i>Vata</i>
Pain in Mouth	<i>Mukhantargata Vedana</i>	<i>Vata</i>
Recurrent inflammation and ulceration of the mucosa	<i>Mukhapaka</i>	<i>Pitta, Vata</i>
Blanching of the oral mucosa	<i>Shweta, Pandu varna (Vaivarnya) of Mukhayatana</i>	<i>Kapha</i>
Leathery hard consistency and stiffness of the oral mucosa	<i>Kathinya, kharta, stambha of the Mukhagata Dhatu</i>	<i>Vata, Kapha</i>
Fibrosis, Fibrous bands	<i>Kathina, Khara, Shukla Vranavastu</i>	<i>Vata, Kapha</i>

Treatment

Medical treatment is symptomatic and predominantly aimed at improving mouth movements.

Surgical treatment is indicated in patients with severe trismus and/or biopsy results revealing dysplastic or neoplastic changes.

Decrease or eradicating habit of chewing areca nut play and important role in preventive measure aspect. To improve current treatment regimens for OSMF, the following strategies have been proposed:

- Nutritional support
- Immunomodulatory Drugs
- Physiotherapy
- Local Drug Delivery
- Combined therapy
- Surgical management.

Chikitsa in Ayurveda

- Nidan Parivarjan* - Avoid using factors that cause oral ulcers.
- Samanya Chikitsa* - *Mukhdhavana* (Mouth wash), *Charwana* (Chewing), *Pratisarana* (local application), *Kashayapana*, *Kavalagraha*, *Kayavirechana*
- Vishesh Chikitsa*

Mukharoga Yoga

SN	Yog	Content	Acharyas
1.	<i>Patoladi Kwatha</i>	<i>Patola, Sauntha, Triphala, Indravaruni, Trayanti, Kutki, Haridra, Daru Haridra, Guduchi</i>	<i>Ashtanga Sangrah 103-104</i>
2.	<i>Chatur Mukha Rasa</i>	<i>Parad Bhasma, Swarna Bhasma, Shuddha Manahshila etc</i>	<i>R.Sa. S.</i>
3.	<i>Saptamrita Ras</i>	<i>Parad Bhasma, Abhraka Bhasma, Lauha Bhasma, Shuddha Shilajeet etc.</i>	<i>R.R</i>
4.	<i>Rasendra Vati</i>	<i>Shuddha Parad, Shuddha Gandhak, Pravaal Bhasma, Lauha Bhasma etc.</i>	<i>B.R.61//115-117</i>
5.	<i>Jatyadi Taila</i>	<i>Jaati Patra, Shankha Pushpi, Vakul twak, Khadir, Chavya, Triphala etc</i>	<i>B.R. 61/147-150</i>

6.	Malyadi Ghritam	Malti Patra (Chameli Patra), Neem Patra, Babbool Patra, Shwet Chandana, Rakta Chandana, Gau Ghrita
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Pathya-Apathya Ahara Vihara

Pathya

- Yogaratanakara has mentioned Pathy Apathya of Mukharogas as Swedana, Virechana, Vamana, Gandusha, Pratisarana, Kavala, Raktamokshana, Nasya, Dhoomapana, Shashtrakarma, Agnikarma.
- Truna Dhanya, Yava, Mudga, Kulattha, Jangala Mamsarasa, Satavari, Karavellaka, Patola, Balamulaka, Karpura Jala, Ushnodaka, Tambula, Ghrita, Khadira, Katu, Tikta Dravyas.^[18]
- One should be encouraged for Kshira and Ghrita Bhojana owed to its Rasayana and Vata Pitta Shamana effects.
- Oral hygiene- various measures for preserving oral health as a part of daily regimen (Dinacharya). Only Ayurveda has mentioned eight measures as a part of Dinacharya to keep tongue, teeth, gums & whole oral cavity (Mukha) clean. They are Dantadhavana/ Dantapavana, Dantashodhana Choorna (manjana), Jihvanirlekhana, Gandusha, Kavala, Pratisarana, Mukhaprakshalana, Tambulasevana.

Apathya

- According to Yogaratanakara Danta Kashtha, Snana, Amla Dravya, Matsya, Anupa Mamsa, Dadhi, Kshira, Guda, Masha, Rukshanna, Kathina Dravyas, Guru, Abhishyandhi Ahara, Divaswapna, Adhomukhashayana are Apathya in Mukharoga.^[19]
- Excessive use of Kashaya Rasa, Katu Rasa, Ruksha, Vikasi, Ushna, Tikshna Dravyas betel nut, tobacco and its related products like Gutka, Mawa, Pan Masala etc. an excessive use of chillies and spicy food must be avoided.

CONCLUSION

The present article opines that Ayurvedic treatment protocols ensure the normalcy of the oral mucosa. It is effective in the management of OSMF without any adverse effects and has sustained relief in follow-up. It can be considered a better alternative to the modern treatment modality in the management of OSMF. This article is an honest attempt to connect references from a variety of sources and compare and contrast the two terminologies. On the basis of Sarvasara Mukharoga's OSMF, patients should be assessed for illness symptoms and signs. The procedure described by Acharya in Mukharoga can be used to cure OSMF (Sarvasara). This comparison of the two terminologies may be helpful in Ayurvedic research. Due to faulty habits such as smoking and tobacco chewing, OSMF is on the rise and requires timely, newer interventions such as Gandusha with relevant herbs. Ayurveda works well for chronic ailments, and there is no chance of side effects.

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