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Ayurvedic Management Of Oral Submucous Fibrosis -A Conceptual Study

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ABSTRACT: -

Oral submucous fibrosis (OSF) is a chronic disease of the oral cavity characterized by abnormal collagen deposition and progressive fibrosis of the submucosal tissue. The prevalence rate of OSF was 6.3 % and gutakha chewing is the most common habit was present in OSF patients. Symptoms include ulceration, burning sensation, submucous fibrosis, restricted mouth opening and xerostomia. In Ayurveda oral submucous fibrosis is correlate with *Sarvasara mukhatoga* (Diseases of Oral cavity) described in *Bruhatrayi*. Betelnut, tobacco, lime, chilies etc. act like irritants and can cause damage to oral mucosa. Treatment including *Pittashamaka Yoga* and *gandush* (Oil pulling), *nasya* (Nasal medication), *pratisarana* (rubbing) etc. can be done in OSF patients. In present conceptual study we are highlighting the management of oral submucous fibrosis**.**

Key words-OSF, *sarvasara mukhatoga*, Single herbs, compound preparations

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INTRODUCTION

Oral submucous fibrosis is a potentially malignant disease that affect any part of oral cavity and occasionally pharynx.[1] it is associated with fibroelastic change of the lamina propria and epithelial atrophy that leads to stiffness of the oral mucosa and can cause depapillation of the tongue, leathery texture of the oral mucosa, progressive reduction of mouth opening, shrunken uvula trismus and an inability to eat.[2] It occur at any age but most commonly seen in young age between 25 to 35 years.[3] Prevalence rate of oral submucous fibrosis in India about 0.2%-0.5% and this rate increased due to use of tobacco products and prepared areca nut.[4] Betel nut chewing is one of the most common cause of oral submucous fibrosis which contains tannins, arecoline, arecaidine, guvacine and guvacoline .[5] Now a days ,it is estimated that betel nut is consumed by 15-20% of the world's population in a various variety of formulations.[6] In Ayurveda Oral submucous fibrosis is correlate with *Sarvasara mukh roga* (Diseases of Oral cavity) describe by Acharya Sushruta. Some symptoms like pain in mouth, blanching of the oral mucosa, burning sensation in mouth, inability to open mouth etc. are found in *mukha roga* (Diseases of Oral cavity) [7]. some treatment modalities like *Swedana* (Sudation) ,*gandush* (oil pulling), *kavala* (gargling),*nasya* (nasal medication) *etc* to cure *mukha roga* (Diseases of Oral cavity). This conceptual article will highlight, evaluate, elaborate and discuss about Oral submucous fibrosis.

AIMS AND OBJECTIVES

1. To evaluate, elaborate and discuss the Oral submucous fibrosis.
2. To evaluate, elaborate and discuss the etiology and Ayurvedic method of Oral submucous fibrosis.
3. To evaluate, elaborate and discuss the management of Oral submucous fibrosis.

MATERIAL AND METHOD

Material related to Oral submucous fibrosis is collected from Ayurvedic text including *Brihatriye and Laghutrye* and text book of modern medicine respectively. The index, non-index medical journals has also referred to collect information of relevant topic.

Conceptual Study

Definition of Oral Submucous fibrosis

It is a chronic insidious disease and is well recognized as a premalignant condition. OSF is collagen related disease associated with areca nut chewing and characterized by progressive hyalinization of the submucosa.[8]

Etiology [9]

- Consumption of chilies-OSF is found mostly among Indians who use chilies to season their food, either in dried or powdered or raw form at every meal.[8]
- Nutritional deficiency-Anemia, vitamin, protein and iron deficiency major role play to develop oral submucous fibrosis. Vitamin A deficiency can led to excessive keratinization and hyperplasia of epithelium.
- Betel nut chewing is the main cause of OSF.
- Autoimmunity-Presence of HLA DR antigen indicates an autoimmune basis of a disease.
- Cell mediated and humoral responses-Cellular immune response (Increase number of macrophages and T-lymphocytes) may play an important role in pathogenesis of oral submucous fibrosis.
- Genetic Susceptibility and Immunologic basis.

Pathogenesis[10]

Oral Mucosa

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Risk factors (areca nut consumption, nutritional deficiency etc.)

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Induced euphoria

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Chronic inflammation due to irritation

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Activation of T-cells and macrophages

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Increase in growth factor

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Procollagen gene activation

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Increased soluble collagen production

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Increased in copper induced oxidation

↓

Increased insoluble collagen production

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Increased fibroblast proliferation

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Fibrosis

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Oral Submucous fibrosis (OSF)

Clinical feature[11]

- Mucosa feels leathery with palpable fibrotic bands
- Recurrent ulceration
- Xerostomia
- Pain in ear
- Restriction of the movement of the soft palate
- Thinning and stiffening of the lips
- Pigmentation of the oral mucosa
- Dryness of the mouth
- Burning sensation of mouth
- Decreased mouth opening and tongue protrusion
- Recurrent ulceration

Management through Ayurveda

Main symptoms of OSF are burning sensation, trismus, difficulty to eat etc. Hence the management have been tried to relieve these symptoms. Acharya Vaghbhat has stated purification of body and *Shiroshuddhi* (cleaning of head) as the first line of treatment of *Mukhrogas* (diseases of oral cavity). *Shiroshuddhi* (cleaning of head) removes the obstructions in channels and opens the channels for absorption in supraclavicular region which might have enhanced the effect of all the used drugs and procedures. external application, gargling and holding oil or decoction in oral cavity are the local therapies mostly used in *Mukharogas* (diseases of oral cavity). [17.] Many single and compound drugs are used to treat oral submucous fibrosis. they are-

Table no 1. Showing Single herbs used in oral firosis

Sr.no	Herbs	Uses
1.	*Haridra* (Turmeric)	Antitoxic, antiseptic, hepatoprotective, antifungal, antiviral, antiplatelet, Antioxidant and anti-inflammatory property. Turmeric showed anti-inflammatory and fibrinolytic action among patients.[12]
2.	*Tulsi (Ocimum sanctum)*	Analgesic, antioxidant, antistress, antiseptic etc. *Tulsi (Ocimum sanctum)* helps to improve in mouth opening distance among patients.[13]
3.	*Aloe vera*	Aloe vera is also known as the plant of immortality.[14] It reducing the symptoms of OSF like burning sensation and increase mouth opening.[15]
4.	Tomatoes	Tomatoes consists lycopene as an antioxidant property and anticancer agent by inhibiting collagen production.
5.	*Ashwagandha (Withania somnifera)*	Anti-oxidant, anti-inflammatory property etc. *Ashwagandha* improve patient's immunity.

Table no 2. Showing Compound preparation used in oral firosis

Sr.no	Preparations	Uses
1.	*Aswagandha arista*	Used for Stress, neurological disorder, rasayan[18]
2.	*Haridradi tail*	Used for Ulceration, redness and erosion of oral cavity, difficulty in swallowing etc.[19]
3.	*Jatyadi tail*	It is used for Wound healing, sinuses, abscess, bite wound etc. [20]
4.	*Iremedadi tail*	Useful in various *Mukha roga* (diseases of oral cavity) like burning mouth syndrome, pericoronitis, gum abscess etc.[21]
5.	*Khadiradi gutika*	It is used in Ayurveda management of cold, asthma, bronchitis and mainly use for *Mukha roga* (diseases of oral cavity).[22]

DISCUSSION

The oral submucous fibrosis are one of the major concerns in recent times. According to Ayurveda mainly all the oral disease are caused predominantly caused by *Kapha and Rakta dosha*. So, *Kavala* (gargling) with decoction of medicines having *Tikta and Katu* (bitter-pungent) *rasa* are to be adapted, where therapies which mitigate *Rakta and Kapha*

dosha are beneficial in the treatment of *Mukha roga* (diseases of oral cavity). Other surgical and non-surgical treatment for oral submucous fibrosis is not completely effective but Ayurvedic, herbs and preparations show efficacy in improvement of symptoms. filling the mouth with liquid is called *Mukha purana* (pulling technique) and it is beneficial in burning sensation of mouth. *Kavala* is a procedure explained in our classics and it is used as an *Upkarma* (para surgical procedures) in many *Mukhaghata roga* (diseases of oral cavity). *Gandhusa* (oil pulling) with *Pittanataka churna and Madhu* (honey) is very effective in *Mukha roga* (diseases of oral cavity). Most of the drugs are having antioxidant, anti-inflammatory medicine, cancer preventive properties that may have improved the status of dhatus.

CONCLUSION

Ayurveda treatment is helpful to subside inflammation and ulceration so preventing further progress, increases suppleness of the stiffed oral tissue in terms of reverses fibrosis in some extent, improving mouth movements and improves overall immunity which in turns increases the strength of submucosa and oral mucosa to overcome the disease.

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