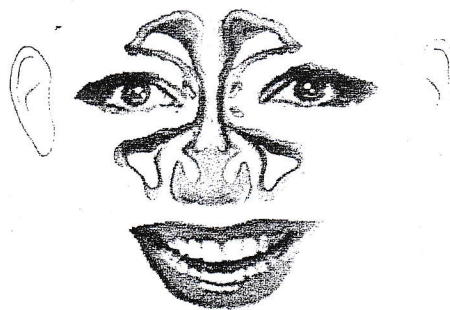


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SRI LANKAN TRADITIONAL MEDICINE AND AYURVEDA INTERVENTION IN THE MANAGEMENT OF ORAL SUBMUCOUS FIBROSIS: A CASE SERIES

Peiris K.P.P.*
Abegunasekara N.S.**

ABSTRACT

Oral sub mucous fibrosis (OSMF) is a pre-malignant lesion of the buccal mucosa caused by chewing betel quid. It results in the progressive inability to open the mouth. Four case series of oral submucous fibrosis were treated with Sri Lankan traditional and Ayurveda Intervention has been showed marked improvement in trismus and burning sensation throughout the treatment as well as follow-up period. No any adverse effects were reported throughout the period.

In conclusion, reported patients' quality of life was improved by Sri Lankan Traditional Medicine and Ayurveda.

Key words: OSMF, traditional medicine, premalignant, areca nut

INTRODUCTION

The oral cavity is a very valuable structure for human beings. It takes part in many important functions including mastication, swallowing, taste and phonation. Incapacitating these fundamental requirements have many consequences on both mental and physical health.

Oral sub mucous fibrosis has been described in medical literature for more than half a century now. The Schwartz first described it in 1952¹, since then it has been reported in different names, but sub mucous fibrosis is the most widely used term.

It is a chronic disease with chronic inflammation and fibrosis of sub mucous tissues, causing restriction of the mouth opening.² Though it is a pre-cancerous condition there is 7.6% of potential for malignant transformation.³ Cases have been reported worldwide where ever Asian migrate, but is occurs most commonly in India and South East Asia⁴.

A number of risk factors seem to contribute to the juxta epithelial inflammatory disease process in the oral mucosa leading to OSF. A strong association has been observed with areca nut chewing with or without tobacco and OSF. The other factors that are considered to be responsible are capsaicin in chilies and micronutrient deficiencies of iron, zinc and essential vitamins.

CASE REPORT - I

A 35 year old man working in quarry since 8 years came to us with difficulty in opening the mouth since 01 year. He started having burning sensation over the mucous membrane on both sides with spicy food and since then he was having restricted movements of the cheeks on both sides. Further he is a smoking about 10 - 15 bide per day and regular 3 - 4 times chewing areca nuts per day. There was no history of any other skin lesion or other mucosal involvement.

*Senior Lecturer- Gr I,

**Lecturer (temporary), Department of ShalyaShalakya, G.W.A.I, University of Kelaniya, Sri Lanka.

On examination, the mucous membrane of both cheeks were shiny and pale white with fibrous bands extending from the buccal aspect of molar area up to the angle of mouth. Oro-dental hygiene was poor. The movements and opening of the mouth was reduced on both sides.

CASE REPORT - II

A 24 year old male working in a tea estate as a tea plucker reported with progressive inability to open his mouth. This condition had manifested itself 2 years earlier and was progressive. He was in habit of holding betel leaves with areca nut, tobacco and lime in the oral vestibule for several hours a day since 2 years. He complained about loss of appetite and decrease of taste gradually. On examination, the mucous membrane of right side of cheek was pale white with fibrous bands were observed. Oro-dental hygiene was very poor. Multiple decayed teeth were identified the movements of the cheek on right side was restricted and mouth opening also reduced.

CASE REPORT - III

A 45 years old man working in a gem mine since 15 years was reported with difficulty in opening mouth with burning sensation, and it was gradually progressive since 1 ½ years. He was in habit of taking alcohol daily with betel chewing with areca nut lime and tobacco 7-8 times a day and holding it in right buccal mucosa for many hours and also smoking 6-10 bide per day. On examination, the oral mucosa appeared very pale, the right buccal mucosa had decreased elasticity and had a leathery consistency. Vertical fibrotic bands were palpable on both sides of the cheek. The soft palate has an opaque, white blanched appearance the papillae on the surface of the tongue were atrophied.

CASE REPORT -IV

A 41 years old male working in quarry since 10 years come to us with difficulty in opening the mouth since 01 year. He started having burning sensation over the mucous membrane on both sides of buccal mucosa and soft palate with spicy food. He was in habit of holding betel leaves with areca nut, tobacco and lime in the oral vestibule during day time and night hours also. He always found of more spicy foods and incorporating green chilies to his meal most of the time. On examination, the mucous membrane of both cheeks and soft palate were shiny and pale white with fibrous tissues. Oro-dental hygiene was very poor. The movements and opening of the mouth was reduced on both sides.

At present conservative as well as surgical interventions for OSF have not resulted adequate long-term results. Since OSF may occur in young adults, the primary aim should be to avoid progression of the disease, initially by physiotherapy. Surgical interventions should not be applied at an early stage of the disease because recurrences and further surgical interventions are often necessary. Therefore, to avoid progression and give some sort of relief to the OSF patients this Ayurveda treatment protocol scientifically applied.

METHODOLOGY

Four (04) cases of reported oral sub mucous fibrosis were reported with the evidence of confirmed diagnosis by biopsy reports to the oral health care unit at Ayurveda National Teaching Hospital Colombo 08, Sri Lanka. All the cases have been treated by allopathic medicine for several months was not succeeded. All the routine investigations such as complete blood count, liver and kidney functions were within normal ranges.

They were treated by Ayurveda and Traditional medicine for three (03) months without discontinuation. Treatment protocol was consisted with local and systemic therapies. Patients were assessed in two (02) weeks interval and follow-up study was continued for one months after completion of the treatment period.

All four cases were treated as follows:

- Dashamoola Kashaya sneha gandusha
- Kashaya mixed with ghee 03 times a day, 45 ml of gandusha liquid + 15 ml of pure cow's ghee – 3/12
- Lavanadi Taila locally, massage (traditional yoga) 15 ml 2 times a day and followed by jaw exercises – 3/12.
- Rasayana therapy (powder) - (traditional yoga) 5g. 2 times with ghee before meals morning and evening- 3/12
- Follow up – one month after completion of the treatment period.

ASSESSMENT CRITERIA

Subjective: Burning sensation

Evaluated by using 0-3 grading system

Grade	Symptom
0	Burning sensation-None
1	Burning sensation -After intake of spicy food only
2	Burning sensation -After intake of any food or liquid
3	Burning sensation -Always remained

Objective: Interincisal distance⁵

Difficulty of opening the mouth >35 mm –normal -1

35-30 mm –mild-2

29-25 mm –moderate-3

24-20 mm- moderately severe-4

<20mm-Severe -5

Instructions:

All four patients were advised to stop or avoid chewing of betel leaves with areca nut, lime etc. smoking alcoholism and intake of more spicy chilies foods.

Statistical analysis

The information gathered on the basis of observations were subjected to statistical analysis. Effect of therapies on subjective and objective parameters were analyzed by using SPSS – 20 package.

OBSERVATION AND RESULTS

In the present study, four patients were from the age group of 20 to 45 years and all patients were males, and outdoor workers. 100% patients were having vata-kapha deha prakriti. All the patients have had habit of chewing betel with areca nut, lime and tobacco and smoking etc., 100% patients were reported chronicity between 1 to 2 years. 100% patients Oro-dental hygienic was poor.

While considering the subjective criteria, 75% of patients (03) were presented with moderate type of burning sensation in the oral mucosa and 25% of patients (01) with mild type.

As an objective criteria difficulty in opening the mouth was assessed through the measurement of inter incisal distances. In pretreatment, 75% of patients (03) were identified with moderately severe category (25 – 20 mm) and 25% of patients (01) was observed under severe category (<20 mm).

Effect of Therapy

After three (03) months treatment period, inter distance was markedly increased which is statistically significant ($P < 0.05$). In other hand, burning sensation of oral mucosa was marked decreased. Both para meters are satirically significant i.e. $P < 0.05$.

One-Sample Test						
Test Value = 0						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Inter incisal distance-pre	17.000	3	.000	4.250	3.45	5.05
Inter incisal distance-post	3.656	3	.035	1.750	.23	3.27
Inter incisal distance-followup	3.656	3	.035	1.750	.23	3.27

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Burning Sensation-pre - Burning Sensation-post	1.750	.500	.250	.954	2.546	7.000	3	.006

Clinical Observations of Patients after follow up

After completion of the clinical trial of 03 months, the patients were followed-up for further 01 month. During this period, none of the signs and symptoms were observed.

Further none of the side effects were observed during the treatment and follow up period too.

DISCUSSION

Oral sub mucous fibrosis is a pre-cancerous condition of the upper air way that occurs in an estimated 2-5 million people worldwide. It is causing restriction of the mouth opening. Areca nut chewing plays a significant role in its etiology.

Owing to the involvement of vata, pitta dosha and rasa, raktha and mamsa dhatu in OSF, vata predominant prakriti is more prone to this disease.

While considering the pharmacodynamics properties of local therapies such as sneha gandusha with Dashamoola kashaya with ghee and local application of Lavanade taila (traditional yoga) helped to pacify predominantly vatadosha and ultimately helped to pacify pitta dosha too.

Both preparations have had, properties like snigdha, guru, vikashi, viyavaiguna, lavanakatu rasa also helped to pacify vata predominance.

Further several studies have been proved that, Dashamoola yoga has fibrinolytic action ultimately reduce fibrosis.:

Due to synergistic action of ghee mixed preparation the whole activity willincreased and leads to produce better results.

The rasayana yoga (traditional yoga) collectively, has madhura rasa, guru snigdha guna, madhura vipaka, vata pitta shamaka properties. In addition to that balya, dahaprashamana and fibrinolytic actions. All rasayanas are anti-oxidants, which promote

free radical scavenging actions. Finally, all these actions helped to pacify vatadosha and reduced the fibrosis which will help to enhanced the mouth opening.

CONCLUSION

Surgical interventions should not be applied an early stage of the diseases because recurrences and further surgical interventions are often necessary. Therefore, surgical intervention for OSF has not resulted inadequate long-term results.

Meantime, patient is gradually leads to closed mouth without any jaw movements. But, in this conservative indigenous management have been helped to reduce the restricted mouth opening and burning sensation in oral mucosa.

This leads to improve the quality of physical and mental life of the patient. Not only that but also the proper preventive measures such as public education must be taken to reduce this serious disease.

REFERENCES

01. Schwartz J :Atrophialidiodiopathica (tropica) mucosae oris demonstrated at the 11th International Dental Congress, London, 1952.
02. WHO Meeting report, Control of Oral Cancer in developing countries, WHO Bull. 1984,62:617
03. Aziz SR, Oral sub mucous fibrosis an unusual disease, JNJ Dent Assoc.1997;68;17-19
04. Tang JG, Jain XF Gao Ml, et.al Epidemiological survey of oral sub mucous fibrosis in Xiangtan city, Hunan Province, China, Community Dent Oral Epidemiol, 1997,25; 177-80
05. Nishantkhare et.al, Normal mouth opening in an adult Indian Population, Journal of Maxillofacial and oral surgery, doi.10.1007/s 12663 – 012-0334-1 2012 Sep. : 11(3):309-313