Case Report: Dental science

Management of oral sub-mucous fibrosis in an edentulous patient

1Dr. Abbasali B., 2Dr. Jeevan CA, 3Dr. Mayur Khairnar.*

1,2Department of Oral & Maxillofacial Surgery, MR Ambedkar Dental College, Bangalore, Karnataka, India.
3Precision Dental Clinic & Implant Center, Anand Nagar, Thane, Maharashtra, India
*Corresponding Author: E- Mail id: drmayurkhairnar@gmail.com

Abstract:
Oral sub mucous fibrosis is an insidious chronic disease and a precancerous condition, affecting any part of the oral cavity and sometimes the pharynx. Management of edentulous patient with oral sub mucous fibrosis presents difficulties at all stages. Here is a case report of 40 year old female patient with oral sub-mucous fibrosis. Surgical resection of the bands was done and the vestibular depth was increased surgically. Surgical defect was covered using split thickness skin graft and buccal pad of fat. Increased vestibular depth was maintained using prefabricated dentures with extended flanges. Dentures were stabilized using suspension wires.

Key words: Oral sub-mucous fibrosis, split thickness skin graft, denture splints

Introduction
Oral submucous fibrosis is an insidious, precancerous, chronic disease that may affect the entire oral cavity and sometimes extends to the pharynx. Although it is occasionally preceded by formation of vesicles, it is always associated with subepithelial inflammatory reaction that is followed by fibroblastic change of the lamina propria with epithelial atrophy. This leads to stiffness in the oral mucosa resulting in trismus and inability to eat. Oral submucous fibrosis is predominantly seen among Indians and the other Asian population. Fabrication of a denture in an edentulous patient with oral submucous fibrosis is challenging due to the decreased mouth opening and presence of the fibrous bands.

Case Report
A 40 year old edentulous, female patient was referred to department of oral and maxillofacial surgery from the department of prosthodontics with reduced vestibular depth and decreased mouth opening for rehabilitation with complete dentures. Patient gave a history of betel nut chewing for the past 20 years and had discontinued the habit after she developed burning sensation in the mouth in response to hot fluids and food. On intraoral examination the oral mucosa was pale and tongue was pale and bald. Thick fibrous bands were extending from the buccal mucosa to the alveolar ridge and also in the retro molar areas and the maxillary tuberosity regions bilaterally. Patient had a mouth opening of 25 mm. A diagnosis of oral submucous fibrosis was made. [FIG 1 AND 2] Customized trays were prepared for impressions to prepare Study casts, and dentures were fabricated. Denture flanges in the retromolar region and the maxillary tuberosity region were extended to be seated in the increased (post-surgical) vestibular depth. [FIG 3, 4] Grooves and holes were made in both upper and lower dentures to fix the suspension wires.
Under general anaesthesia surgical resection of the fibrous bands was carried out. [FIG 5] The vestibular depth was increased in the maxillary and mandibular posterior region. A split-thickness skin graft was harvested from the right thigh using standard harvesting protocol. [FIG 6] The graft was sutured to the raw wound surface on the right maxillary and mandibular vestibule and left side of the mandibular vestibule.[FIG 7] In the left maxillary tuberosity region buccal pad of fat was used to close the defect. Dentures were fixed over the graft using zygomatic suspension in the maxilla and circummandibular wiring in the mandible. [FIG 8]

Postoperatively patient was on Ryle’s tube feeding for 7 days to maintain good oral hygiene. From the 3rd post operative day mouth opening exercises was started. Patient was on parenteral antibiotics for 7 days followed by Oral antibiotics for the next 5 days. On the second post operative week patient had a mouth opening of 35mm.

**Discussion**

Oral submucosal fibrosis is a well known clinical entity since the time of Sushruta when it was called “vidari”. Joshi, in1953, was the first person to describe this entity in India. [1,1].It is an insidious chronic disease that may affect any part of the oral cavity and sometimes the pharynx, leading to stiffness of the oral mucosa and causing trismus. The disease is seen most commonly in India and is not uncommon in Southeast Asia. Betel nut chewing appears to be the main factor correlating with the disease. [3,4]

and surgical modalities. Medicinal agents like hydrocortisone, hyaluronidase, triamcinalone and a combination thereof have also been used, but without significant results. [5] Extensive research over half of the past century has suggested use of curcumin in precancerous conditions due its anti-inflammatory, anti-oxidant and proapoptotic activities [6]

Surgical treatment includes excision of fibrous bands and reconstruction of the resultant defects using skin grafts as well as local, regional and distant flaps such as oral mucosal flaps, myomucosal island flaps, tongue flaps, local muscular flaps like temporalis or temporalis fascia transfer and buccal fat pad. [7] Temporalis myotomy with coronoidectomy has also been advocated. [8] In the present case, esthetics and function achieved with split skin graft was good. A worldwide web search of databases with the key words OSMF and Edentulous patient resulted in very few research articles published on surgical management in edentulous patients till date.

Use of occlusal splints and gunning splints is widespread in the management of maxillofacial trauma in edentulous patients. In the present case dentures were successfully used to gain adequate vestibular depth. Innovative medical technology & health education is essential for patients so that diseases can be cured rather than be managed.[9]  

**Conclusion:** Here we advocate the use of split thickness skin graft and pedicled buccal fat pad [BFP], and a simple technique of using dentures to rehabilitate the patient.
References:


Date of submission: 28 April 2013
Date of provisional acceptance: 15 May 2013
Date of Final acceptance: 01 July 2013
Date of Publication: 03 July 2013
Source of support: Nil; Conflict of Interest: Nil