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Oral Submucous fibrosis: New technique for management- A Case Report

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Abstract

Oral submucous fibrosis (OSF) is the chronic disease of the oral mucosa which is painful and crippling. It is well known as being potentially malignant. Disorder which is specifically associated with the use of arcanut in different ways. It features inflammation and progressive fibrosis of the tissue is submucosal. The disease pathogenesis involves numerous factors such as arecanut chewing, chillies**,** nutritional deficiencies and genetic processes. An attempt is made through this article to update the awareness of aetiology and its therapeutic and surgical management which Improves life expectancy of OSFM patients.

Keywords: Oral submucous fibrosis, Surgical interventions, coronoidectomy, collagensheets, Review

Introduction

Oral Submucous Fibrosis (OSMF) is an insidious recurrent condition that affects any part of the oral cavity, and sometimes the pharynx. Though often accompanied by or Always associated with vesicular formation With an

inflammatory juxta-epithelis reaction accompanied by Fibroelastic lamina propria improves with an epithelial atrophy, Which contributes to oral mucosa stiffness[1]. OSF was first reported by Joshi in India in 1953, and coined the term submucous palate fibrosis and faucial pillars. Certain names proposed include diffuse oral submucous Fibrose (Lal, 1953), idiopathic mouth scleroderma (Su, 1954), Palatine idiopathic fibrosis (Rao, 1962) and Stomatitis sclerosante (Behl, 1962)[1]. Surgical management of OSMF has involved excision of the fibrotic bands either by the scalpel or using a laser, with or without the use of interpositional grafts to maintain the oral opening [3].

Case Report

A 29 -year-old Indian male was referred to the Oral and Maxillofacial Surgery department, ITS dental college hospital and research center for the evaluation and management of progressive trismus. Patient presented with main complaint of inability to chew food and limited mouth opening. He reported that this has been going on with him for the last few years but became more concern for him just recently. His medical history was nonsignificant . Patient reported that he has been chewing pan of Indian tobacco for the last 5 years. Clinical exam showed no lymphadenopathy, swelling, or asymmetry. Limited mouth opening at 15mm (figure 1)Intraoral exam showed poor oral hygiene. Palpable severe fibrous bands in buccal mucosa from just inside the commeasure of the mouth up to the pterygomandibular raphe were felt bilaterally. Soft palate, tongue and floor of mouth were not involved. The fibrosis has resulted in pale-appearing mucosa(figure2).

Figure 1: maximum mouth opening

Figure 2: blanching of buccal mucosa (right).

After discussion of the clinical findings and treatment options with the patient(though the patient was not convinced for nasolabial flap due to external scar we decided going for intraoral). The patient was taken to the operating room where he was placed on the surgical table hooked to the anesthesia, cardiac monitors, and pulse oximeter . Next patient was induced via intravenous general anesthesia and intubated with no complications. Local anesthesia was infiltrated in the intended surgical areas. Using a intraoral approach a blade number 15 was utilized for the surgical excision of the fibrous bands and protecting underlying vital structures. A vertical incision was placed away 5mm from corner of the mouth

(intraorally) and using the vertical incision Surgical dissection was carried out submucosally to the level of the retromolar area and a tunnel was created. After inserting the malleable retracter in the tunnel a horizontal incision was performed keeping the retractor as a guard not to injure any vital structures. The fibrotic bands were excised. The same procedure was performed on the contralateral side (figure 3,4). After dissecting the fibrotic bands bilateral coronoidectomy was performed.

Figure 3: excision of fibrotic band (right)

Figure 4: excision of fibrotic band (left)

Next attention was made vigorous Mouth opening intraoperatively measured toward the end of the procedure and was recorded at 40 mm(figure 5).

Figure 5: maximal mouth opening 40mm using histers mouth gag.

Coverage of the mucosal defect collagen membrane- Next attention was made toward the collegen sheets 5 × 5 cm was measured according to the defect and placed , multiple perforations were done throughout the collegen sheet to ensure rapid revascularization and prevent hematomas from developing.

Next the collegen sheets were sutured into place using 3-0 Chromic Gut restorable sutures in simple interrupted fashion. After that the surgical area was irrigated and patient was extubated and transferred to the recovery room in stable condition. Postoperatively the patient was placed on full liquid diet for one week through nasogsatric feeding, with antibiotics, analgesics, antiemetics, multivitamins.

Patient was followed regularly and on the second week his mouth opening was noted to decrease to 35mm. and mouth opening was done using histers mouth gag. The patient was advised to perform mouth openig exercises on a regular basis.

Patient was placed on vigorous mouth opening exercises using Therabite devise. Patient responded well to the treatment regimen and maintained mouth opening at 35mm after 8weeks of treatment with good ability to have a satisfactory masticatory function. The final outcome was satisfactory(figure6).

Figure 6: maximum mouth opening measured 35mm post 6th day of surgery

Figure 7: post-op one month

Discussion

Oral submucous fibrosis is a well-recognized potentially premalignant lesion of the oral cavity. Oral submucous fibrosis is also a common disease in countries where betel nuts are chewed habitually. It is believed to have multiple causes. Local irritants (betel nuts, tobacco, and spicy food), general nutrition, and vitamin deficiencies are considered to risk factors for oral submucous fibrosis[3]. The first clinical symptom of oral submucous fibrosis is Mouth soreness and burning regularly when eating spicy Food. Food. Oral submucosal fibrosis is clinically broken down into 3 Stages: fibrosis, stomatitis and sequelae. In Stage of stomatitis: Oral mucosa includes erythema areas What vesicles turn up in. Such vesicles later split into bits Ulcers which heal via fibrosis. The primary presenting complaint in this disease is progressive trismus from fibrosis of the buccal submucosa[5]. Treatment is based on severity of disease. Typically, if the disease is noted before development of trismus, cessation of the betel habit will often resolve the disease. Once trismus has developed and disease is now considered mild to moderate, oral submucous fibrosis is irreversible disease, with the goal of medical and surgical therapy to maintain oral function and limit progression of disease[3]. Treatment at this stage is focused on restoring mandibular range of motion, oral cancer surveillance, and cessation of betel nut habit. Physical therapy combined with medical treatment is often utilized[3].

The treatment protocols based on the review could broadly be divided into the following steps:

Step 1: Excision of fibrotic bands with scalpel or using lasers.

Step 2: Coverage of the mucosal defect using flaps, grafts and collagen membranes.

Step 3: Adjunctive procedures intraoperatively included coronoidectomies and masticatory muscle myotomies.

Step 4: Post operative oral physiotherapy, dietary supplementation and other medications[2].

Conclusion

OSMF 's surgical diagnosis is specifically for Trismus release triggered by fibrotic bands and Maintaining oral

opening during post-operative time. Prominent results of this analysis were the lack of a coordinated approach Treatment schedules, short follow-up times and The lack of supervised trials to evaluate the evidence Effectiveness of a given procedure. There should be Clear guidelines for chirurgical procedures and Procedures outlined and care described on the basis of Level of panoral involvement. In our experience the new surgical technique was successful and had satisfactory results.

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