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Original Research Paper

Oral Submucous Fibrosis: case report

Dental Science

KEYWORDS : potentially malignant disorder (PMD), areca nut, fibrous bands

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ABSTRACT

Oral submucous fibrosis (OSMF) is a chronic, insidious, disabling disease of oral mucosa, oropharynx, and rarely, the larynx. It results in difficulty to open the mouth. The treatment of OSMF depends on the degree of involvement and timely diagnosis. Patients with OSMF need treatment for trismus correction, reconstructive surgery for any simultaneous oral malignancy. A case of oral submucous fibrosis occurring in a 40 years old male patient is presented with emphasis on the review of literature.

Introduction

Oral submucous fibrosis (OSMF) is a potentially malignant disorder caused by chewing of betel quid. It results in progressive inability to open the mouth. [1, 2]

Ram Nathan has recommended that OSMF may be a mucosal change that may be secondary to chronic iron deficiency calling it as an Asian analogue of sideropenic dysphagia. [3] It might be a nonspecific inflammatory reaction to trauma but the exact etiology is not known. [4,5] The present case report describes a case of OSMF in a 35 year old male patient.

Case report

Patient complained of inability to open mouth since 8-9 months. Patient gave a history of khaini chewing since 10 years with a frequency of 10-11 times/day. No gross asymmetry detected. Inspectory findings revealed sunken cheeks of patient with restricted mouth opening. [Fig 1] Interincisal opening was limited to 20-22mm. [Fig 2] Bilateral buccal mucosa was involved and was blanched in appearance. On palpation lesion was leathery in consistency and vertical bands were palpable in the posterior molar region on left side.

Based on the clinical findings a provisional diagnosis of OSMF was made. Incisional biopsy was taken and microscopic findings revealed atrophic parakeratinized stratified squamous epithelium without formation of rete pegs. The subepithelial connective tissue showed hyalinization and dilated blood vessels were also noted. The deeper section of connective tissue revealed dense collagen fibre bundles and degenerated muscle fibre bundles.[Fig 3]

On the basis of Histopathological findings a final diagnosis of Moderately Advanced OSMF was made.

Patient counseling was done and oral medications were prescribed and patient was on follow up for 3 months.

Discussion

OSMF is a potentially malignant disorder of the upper airway that occurs in an expected 2.5 million people worldwide. [6] In Central and Southeast Asia, the use of smokeless form of tobacco widely involves the chewing of betel quid or pan-supari. It is a combination of Areca nut, betel leaf, tobacco and slaked lime. This mixture is held closest to the buccal mucosa and slowly chewed over a long period of time. It produces effects similar to smoking tobacco and is addictive. [7] OSMF affects mostly the buccal mucosa, lips, retromolar areas, soft palate.Early lesions present as a blanching of buccal mucosa, imparting a marble-like appearance but later lesions reveal palpable fibrous bands rendering the mucosa pale, thick and stiff. This leads to progressive inability to open the mouth, burning sensation, pain, dysphagia and finally hearing loss. All the accessible treatments only provide symptomatic relief that is short lived. Areca nut chewing, smoking tobacco and hypersensitivity to chilies are the causative agents in genetically predisposed patients. [8] There is a need for careful observation and follow up in every case in order to retard the disease process. Sirsat and Khanolkar investigated the outcome of capsaicin, which is a component of chili peppers, on the palates of Wister rats and found a limited connective tissue response, but this was increased when the animals were vitamin B12 deficient. Iron and vitamin B12 deficiency has been associated particularly in conjunction with other factors. [9] In 1919 Paterson and Brown- Kelly described the condition of chronic dysphagia and mucosal atrophy in women with chronic anemia termed as sideropenic anemia or Brown- Kelly- Paterson Syndrome and has the possibility for cancerous change in the oropharynx. [10]

Conclusion

OSMF is a potentially malignant disorder, which requires close monitoring and follows up. Areca nut has been imposed as one of the initiating factors for the disease causation. Various treatment modalities are present and are used as per the stage of disease.

Figures and legends

Fig 1 shows inability to open mouth

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Fig 2 shows reduced interincisal distance

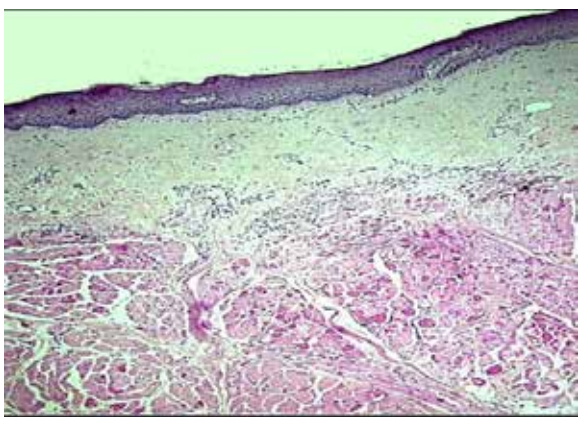

Fig 3 Photomicrograph showing atrophic surface epithelium with absence of rete ridges and subepithelial hyalinization. Deeper sections show dense collagen fibres and degenerated muscle bundles

References

1. Stone DJ, Gal TJ. Airway management. In:Miller RD, ed. Anesthesia, 5th Ed. Philadelphia: Churchill Livingstone, 2000:1414 – 51.
2. Mahajan R, Jain K, Batra YK. Submucous fibrosis secondary to chewing of quids: another cause of unanticipated difficult intubation. Can J Anaesth. 2002; 49: 309 – 11.
3. Practice Guidelines for Management of the Difficult Airway. A report by the ASA Task Force on Management of the Difficult Airway.Anesthesiology. 1993; 78: 597 – 602.
4. American Joint Committee on Cancer. Cancer Staging Manual, 6th Ed. New York: Springer-Verlag, 2002: 23 – 32.
5. Celik N, Wei FC, Chang YM, et al. Squamous cell carcinoma of the oral mucosa after release of submucous fibrosis and bilateral small radial forearm flap reconstruction. Plast Reconstr Surg 2001; 107:1679–83. Anesth Analg Case Report. 2005; 100: 1210 – 3.
6. Mallampati SR, Gatt SP, Guigino LD. A clinical sign to predict difficult tracheal intubation: a prospective study. Can Anaesth Soc J. 1985; 32: 429.
7. Cormack RS, Lehane J. Difficult tracheal intubation in obstetrics. Anaesthesia. 1984; 39: 1105 – 11.
8. Cox SC, Walker DM. Oral submucous fibrosis: a review. Aust Dent J. 1996; 41: 294 – 9.
9. Shah B, Lewis MAO, Bedi R. Oral Submucous fibrosis in an 11-year-old Bangladeshi girl living in the United Kingdom. Br Dent J. 2001;191: 130 – 2.
10. Merchant AT, Haider SM, Firkee FF. Increased severity of oral submucous fibrosis in young Pakistani men. Br J Oral Maxillofacial Surg. 1997; 35: 284 – 7.