



Dental Fusion with Oral Submucous Fibrosis

Oral Submukoz Fibrozla Giden Dental Füzyon

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ABSTRACT

Dental Fusion is developmental anomaly due to the union of two tooth germs resulting in a single tooth. It is an infrequent phenomenon but may cause caries, periodontal, cosmetic and malocclusion abnormalities. OSMF (OSMF) is a chronic inflammatory disorder and a precancerous condition affecting oral mucosa causing inability to open the mouth, burning sensation and leathery consistency. This manuscript describes a case of OSMF and dental fusion.

Key words: Fusion, OSMF, gemination, tooth

ÖZET

Dental füzyon iki dişin tek diş şeklinde birleşmesinden kaynaklanan bir gelişim anomalisidir. Ender görülen bir fenomendir fakat periodontal, kozmetik ve maloklüzyon anormallikleri yanı sıra çürüklere neden olabilir.

Anahtar Kelimeler: Füzyon, OSMF, geminasyon, diş

INTRODUCTION

Tooth Fusion is the joining of two developing tooth germs, resulting in a single large tooth structure. The fusion process may involve the entire length of the teeth, or it may involve the roots only, in which case cementum and dentin are shared. Root canals may also be separate or shared. It may be impossible to differentiate fusion of normal and supernumerary teeth from gemination¹. Prevalence of tooth fusion found to be more in primary dentition which was estimated to be 0.5% to 2.5%².

Oral submucous fibrosis (OSMF) is a chronic, insidious disease that is associated with significant functional morbidity and an increased risk for malignancy.³

Case Report

A male patient 35 years of age with a complaint of burning sensation in the oral cavity and inability to open the mouth. He was a gutka chewer past 10 years. On examination of oral cavity there was blanched mucosa with 'marble stone appearance'. His mouth opening was reduced with leathery consistency of oral mucosa. His dental examination revealed enlarged clinical crown with respect to mandibular anterior region. Surface of the crown was grooved. Based on these findings diagnosis of OSMF and fusion of right mandibular central and lateral incisor was given.



DISCUSSION

Fusion is a developmental anomaly affecting the shape of teeth characterized by the union of two adjacent teeth. In 1963 Tannenbaum and Alling, defined fusion as a union of two separate tooth buds at some stage in their development⁴.

The aetiology of fusion is still unknown, but the influence of pressure or physical forces producing close contact between two developing teeth has been reported as one possible cause. Genetic predisposition and racial differences have also been reported as contributing factors³. In the anterior region this anomaly leads to disagreeable aesthetic tooth shape due to the irregular morphology. They have a greater tendency to caries and periodontal disease and, in some cases, endodontic treatment is very complicated⁵. As the surface usually exhibit labial and lingual grooves running vertically are difficult to clean and caries prone².

Tooth gemination, in contrast to fusion, arises when two teeth develop from one tooth bud and, as a result, the patient has a larger tooth but a

normal number⁶. For a differential diagnosis between these anomalies, the dentist must carry out a highly judicious radiographic and clinical examination⁵.

Treatment of a fused tooth will depend on the clinical situation. Studies have shown that anomalies of primary dentition tend to repeat themselves in the permanent dentition. Advanced treatment like sectioning and restoration, reconstruction with metalloplastic crown, amputation of one root, etc., greatly depends on location and extent of fusion².

Oral submucous fibrosis (OSMF) is a chronic debilitating and a well recognized potentially malignant condition of oral cavity associated with arecanut chewing characterized by generalized fibrosis of oral soft tissue resulting in marked rigidity and progressive inability to open the mouth⁷.

The prevalence by gender varying from 0.2-2.3% in males and 1.2-4.57% in females. The age range of patients with OSMF is wide ranging between 20 and 40 years of age.⁽⁵⁾ It has been

suggested that areca nut, ingestion of chillies, genetic susceptibility, nutritional deficiencies, altered salivary constituents, autoimmunity and collagen disorders may be involved in the pathogenesis of this condition⁸.

Medicinal management includes steroids, injection of placental extract, use of trypsin, collagenase, hyaluronidase and elastase and intralesional Interferon- γ , oral zinc, pentoxiphylline and lycopene have been tried⁷.

KAYNAKLAR

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