Endodontic Miscellany: Concrescence
- A case report

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ABSTRACT

A number of bizarre and unusual anomalies of teeth have been reported in the literature. Concrescence is one such odontogenic anomaly wherein the teeth are united by cementum only. It is of utmost clinical significance, as treatment of one tooth can directly affect the other tooth. In case extraction is planned, it can not only result in inadvertent extraction of the other tooth but can also get very difficult if proper pre-operative diagnosis with X-ray was not made. This report describes one such case of concrescence.

Key words: Concrescence; Cementum; Maxillary molars

Introduction

Concrescence of teeth is actually a form of fusion which occurs after root formation has been completed. In this condition, the teeth are united by cementum only. The roots of two or more teeth must be in close proximity to allow firm union of one to the other by cementum.

The condition is thought to arise as a result of traumatic injury or crowding of teeth with resorption of inter dental bone so that the two roots are in approximate contact and become fused by the deposition of cementum between them.

Concrescence may occur before or after the teeth have erupted, and although it usually involves only two teeth, there is at least one case on record of union of three teeth by cementum. If it occurs during development of the tooth, it is called true concrescence. If it develops later, it is called acquired concrescence. The teeth most frequently involved are the maxillary second and third molars, and the condition appears to be a predisposition of the natural distal inclination of the maxillary molar roots.

The incidence of morphogenic aberrations of teeth, such as fusion, gemination, and concrescence have been documented in deciduous dentition up to 3.7% whereas in permanent dentition up to 0.8%. Bruce et al carried out a radiographic survey of dental anomalies in black pediatric patients. Of 2267 children examined, only one case of concrescence was detected thus establishing a prevalence rate of 0.04%. The diagnosis of concrescence can be established by roentgenographic examination.

One such case of concrescence involving the maxillary second and third molars is being described.

Case report

A 28 year old male patient presented to the Dental clinic with the complaint of cheek biting on the right side for 20 days. He also complained of food lodgement and bleeding on brushing between the maxillary right second and third molars, and foul breath.

Examination revealed a buccally rotated maxillary third molar. Gingiva in relation to the maxillary second and third molar was enlarged,
bled on probing and exhibited suppuration on digital pressure. There was food lodgement between the maxillary second and third molar. A traumatic ulcer was seen on the right cheek in relation to the buccal cusp of maxillary right third molar. It was decided to extract the maxillary right third molar as it was buccally rotated, out of occlusion and resulted in cheek biting.

During extraction of the maxillary right third molar, the right second molar also got luxated, finally resulting in extraction along with that of the third molar.

Examination of the extracted teeth revealed that both, the second and the third molar were hypercementosed and the apical third of the roots of both the teeth were fused (Fig.1). A radiograph of the extracted teeth was taken to assess the pulpal condition. Radiographic examination revealed that the teeth were fused by cementum only, with separate pulp canals and the diagnosis of concrescence was thus made.

**Discussion**

Concrescence is a relatively rare condition. When extraction is necessary in the maxillary molar region and the condition is not diagnosed in advance by radiographic examination, an attempted forceps removal of one of the fused teeth can lead to inadvertent extraction of both the involved teeth. This occurrence may sometimes be further complicated by simultaneous fracture and removal of the bone of the associated maxillary tuberosity. Surgical exposure, separation, and removal of the tooth requiring extraction is the treatment of choice. Secondly, periapical involvement of one of the teeth may result is similar involvement of the other.

So, the possibility of an abnormal union of this type should always be kept in mind when considering the extraction or endodontic treatment of teeth in the region of the maxillary tuberosity.

**References**