

AN IMPACTED ECTOPIC WISDOM TOOTH THAT CAUSED PULPITIS
PAIN OF THE SECOND MOLAR: A CASE REPORT

İKİNCİ MOLAR DIŞTE PULPİTİS AĞRISINA NEDEN OLAN EKTOPIK
GÖMÜLÜ YİRMİ YAŞ DIŞI: VAKA RAPORU

Umut DEMETOĞLU¹, Zeynep Burçin GÖNEN^{2,3}, Canay Yılmaz ASAN², Erdem KILIÇ², Alper ALKAN²

¹ Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Adnan Menderes University, Aydın, Turkey,

² Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Erciyes University, Kayseri, Turkey

³ Genome and Stem Cell Center, Kayseri, Turkey

ABSTRACT

Dental ectopia is characterized by the change in the normal pathway of a tooth eruption, which may occur in any region of the alveolar and basal bone. The impacted permanent teeth may cause premature root resorption, pulp obliteration, neuralgic pain, or premature exfoliation. This report presents a case of an impacted ectopic upper third molar, which is associated with the second molar and caused symptomatic pulpitis pain.

Keywords: Ectopic, tooth, impacted, molar,

INTRODUCTION

Dental ectopia is characterized by the change in the normal pathway of a tooth eruption, which may occur in any region of the alveolar and basal bone (1). Dental ectopia is a rare developmental anomaly and genetic factors, physical obstacles, or multiple causes can alter the eruption process.

The most frequently found ectopic teeth are the maxillary first permanent molars and canines, followed by the mandibular canine, mandibular second premolar, and the maxillary lateral incisors (2).

Ectopic and supernumerary teeth have been rarely described in non-dental and non-oral sites such as the mandibular condyle, coronoid process, orbit, palate, nasal cavity, nasal septum, chin and the maxillary antrum(3).

Ectopic impacted third molars can be seen in maxillofacial region. This report presents a case of an impacted ectopic upper third molar, which is associated with second molar and caused symptomatic pulpitis pain.

CASE REPORT

A 31 year old female patient referred to our department with the complain of severe pain in posterior maxilla

Makale Geliş Tarihi : 09.09.2013

Makale Kabul Tarihi: 07.07.2015

ÖZ

Dentalektopi, alveolar ve bazal kemiğin herhangi bir bölgesinde gözlenebilen, bir dişin normal sürme yolundaki değişikliklerle karakterize bir durumdur. Gömülü dişler, erken kök rezorbsiyonu, pulpa obliterasyonu, nörolojik ağrı, dişlerin erken kaybı gibi birçok komplikasyonlara sebep olabilmektedir. Bu vakada, ikinci molar dişte pulpitis ağrısına yol açan, gömülü ve ektoptik üst yirmi yaş dişinden bahsedilmektedir.

Anahtar kelimeler: Ektoptik, diş, gömülü, molar

and she suffered from symptomatic pulpitis pain. Interestingly, there was no decayed tooth in relevant side in clinical examination. An impacted third molar among the roots of second molar, which perforated the pulp chamber of the second molar through the furcation, was observed in radiographic examination (Fig. 1).



Figure 1. Panoramic radiograph of the patient

Corresponding Author: Canay Yılmaz Asan,
Erciyes Üniversitesi, Diş Hekimliği Fakültesi, Ağız-Diş ve Çene
Cerrahisi AD. Kayseri, Türkiye
Tel no: +90 352 207 66 00 – 29175-Fax: +90 352 438 06 57
E-mail: dt_canayilmaz@yahoo.com

The treatment was the extraction of the second molar. External resorption in pulp chamber was observed after the extraction of the tooth (Fig. 2) and impacted ectopic third molar was removed surgically (Fig.3-4).

DISCUSSION

Ectopic eruption reflects the eruption of a tooth in an abnormal position (4). The process of tooth development is the corollary of complex interactions between



Figure 2. Presentation of ectopic tooth after the extraction of second molar



Figure 3. Open pulp chamber can be seen through the furcation



Figure 4. The anatomic relation between the third and second molar teeth.

the oral epithelium and the underlying mesenchymal tissue. Disruption of abnormal tissue interactions may cause ectopic tooth development and eruption (3).

It has been demonstrated that dental ectopia is more frequently seen in females than males with a ratio of 2:1 (5). The occurrence of ectopic eruption is usually unilateral, but bilateral cases have been reported, and mandibular lateral incisors are the most affected teeth, representing 30% of all cases (6).

The most frequently found ectopic teeth except lateral incisors are the maxillary first permanent molars and canines, followed by the mandibular canine, and mandibular second premolar. In this case report, impacted tooth was the third molar, which is in ectopic position.

Impacted permanent teeth may cause premature root resorption, pulp obliteration, neuralgic pain, or premature exfoliation (7). In our case, impacted ectopic wisdom tooth perforated the pulp chamber of the second molar through the furcation. Because of this situation our patient had a severe pain because of symptomatic pulpitis.

Pulpitis may be caused by a dental caries that penetrate through the enamel and dentin to reach the pulp, or it may be a result of trauma, such as thermal insult from repeated dental procedures (8). In this case pulp cavity was perforated by an ectopic wisdom tooth without dental caries. In this case there was an open pulp chamber, which may promote polymicrobial infection re-

sulted with symptomatic pulpitis and pain.

Clinical and radiographic examinations are important for treatment planning. Panoramic and periapical radiographs are useful to identify the position of ectopic tooth. However, computer tomography (CT) scans are better to determine a precise anatomical position and its relation with the adjacent structures (9).

Treatment of impacted ectopic teeth must be based on clinical and radiographic evaluation as well as a determination of future risks. Clearly, symptomatic teeth, have caused infection in the surrounding tissues, or have radiographic evidence of development of changes such as cyst formation, resorption of adjacent teeth, or root resorption of the impacted teeth and in these conditions, surgical treatment may be required (10).

In conclusions, impacted ectopic teeth need to be evaluated not only have caused infection in the surrounding tissues, but also to be a candidate for pulpitis pain reason in the adjacent tooth. Treatment modalities and the extraction of the impacted teeth and adjacent teeth must be considered.

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