

# Compound Odontoma – A Representative Case Report

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## ABSTRACT

A compound odontoma is the most common form of odontogenic odontomas and is typically found in the maxillary anterior region. This paper describes a case diagnosed in a 41 year old healthy male patient. Two treatment options were presented to the patient including a referral to an oral and maxillofacial surgeon for an evaluation or periodic monitoring of the odontoma.

**KEYWORDS:** Compound odontoma, Enucleation, Unerupted, Surgical removal

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## INTRODUCTION

**B**y definition a compound odontoma is a developmental anomaly resulting from the growth of completely differentiated epithelial and mesenchymal cells that mature to ameloblasts and odontoblasts (1). The Majority of compound odontomas can be found in the anterior region of the maxilla (1). A compound odontoma is most commonly associated with an unerupted permanent tooth the majority of which are maxillary canines and maxillary incisors (2, 3). However, the etiology of compound odontomas is unknown and they do not seem to be associated with any specific syndromes. (4). Compound odontomas are the most common form of odontogenic odontomas and they affect males and females equally.

## CASE REPORT

A healthy 41 year old male presented for a dental examination and prophylaxis and reported no pain in his oral cavity and maxillofacial area. He reported a clear medical history, a non-contributory family history, and a social history of only occasional alcohol consumption. Moreover, the patient reported that he does not take any medication and has no known drug allergies. His physical appearance

did not reveal any abnormalities and his extra oral examination was within normal limits. Intraoral examination revealed multiple dental restorations, missing teeth including the upper left canine, inadequate oral hygiene, and no pathology associated with his soft tissue. Radiographic examination revealed a compound odontoma in the maxilla between the root of the maxillary left central incisor and the root of the left lateral incisor. The radiograph of the compound odontoma revealed a distinctive clinical crown separated from a dental root complex, however, the clinical crown was in an inverted position with the incisal edge in the apical position (fig 1). The diagnosis of compound odontoma was made solely on the radiographic finding, no other tests were performed and no consultations were requested. Furthermore, the radiograph did not reveal any signs of pathology such as cysts associated with the compound odontoma. The patient reported that he never had pain or purulent exudate in that area and re-examination of the area did not reveal any signs of pathology such as fistulas. The presence of the compound odontoma did not seem to hinder any oral function and the patient reported not ever having any oral issues or discomfort.

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Figure 1: Periapical Radiograph of the maxillary anterior region

Figure 1: Periapical radiograph of the maxillary anterior region

Treatment options presented to the patient consisted of either a referral to an oral and maxillofacial surgeon for evaluation or no treatment and periodic monitoring of the odontoma.

Due to the lack of pathology and

asymptomatic nature of the compound odontoma no treatment other than periodic monitoring was decided by the patient.

#### DISCUSSION

Treatment options for compound odontomas include surgical enucleation of the odontoma (1) or periodic monitoring of the compound odontoma. However, many patients choose to simply monitor the odontoma rather than undergo a surgical procedure especially if the procedure seems unnecessary to the patient, if their health insurance does not cover the procedure, and if multiple appointments are needed for the surgical removal. In the case presented the compound odontoma led to the patient's diastema between the maxillary left central incisor and the maxillary left lateral incisor. Nevertheless, the patient was content with his occlusion and believed the removal of the compound odontoma was not

a necessary procedure and he did not want to spend the time and money pursuing further treatment. It would be prudent for general dentists that diagnose these abnormalities and have patients that refuse surgical removal of the odontoma to document any changes, and lack of changes, of the compound odontoma during recall examinations.

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