**Compound Odontoma**

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Oral Pathology 2023

Section: D043

**Overview**

A combination of pulp, cementum, dentine, and enamel makes up odontoma. There are two main types of odontoma, the complex odontoma and the compound odontoma. One of the most prevalent odontogenic tumors, affecting the structure, size, and development of the teeth. Odontoma are a type of mixed odontogenic tumors that involves both epithelium and mesenchymal components. Compound odontomas consist of several small partially formed structures that resembles teeth. Which usually occur adjacent to impacted teeth and unerupted teeth, are distinguished by denticles made of two or more hard tissues with crowns and roots.

**Etiology**

Although the etiology is still unknown, it may be caused by an interruption in tooth growth. This could be due to infections, genetics, local trauma, and perhaps inherited hereditary Gardner’s syndrome. Development, environmental, and genetic factors may have impact. The majority of odontomas are asymptomatic and clinical signs and symptoms include discomfort, tooth displacement, non-eruption of permanent teeth, and retention of deciduous teeth.

**Clinical Presentation**

Objective finding: The lesion on the CT images, which measured 3.1x 2.6 x 2.2 cm was the discovered from the radiographs in the case of the 13 -year-old boy. There are several radiopaque features in the lesion that resemble teeth. Upon clinical examination, palpation revealed a small edema above the right chin region. Malocclusion resulting from the right permanent mandibular canine affected.

Subjective finding: The patient reported dull soreness in the lower right cheek region, indicating an improper growth of the right molar. Patient reported a sensation of entanglement when chewing. Delayed eruption of the right permanent canine, along with tooth alignment affected by the mass compression.

**Demographic**

Patients under the age of twenty usually experience this during their childhood and adolescence. Occur primarily in the maxillary anterior region and usually in the second or third decades of life. While they are regarded as anomalies, there is no sex preference, and gender has no influence on how frequently they occur. Compound odontomas can occur in people of any race or ethnicity; there is no one race that is more likely to acquire this lesion.

**Biopsy/Histology/Radiographs**

The numerous tiny tooth structures and the dental tissues’ frequent regular organization are characteristics of histology that mimic the formation of teeth. Structures changes in conjunction with fibrous connective tissue during stages of development.

Panoramic radiographs will be able to provide a better perspective image of the area because they can inspect the jawbone. The lesion will first appear radiolucent on the radiographs but progresses to radiopaque and cluster numerous tiny/small teeth like. Cone beam computed tomography is suggested as of detecting any persistence in the size and overlapping presence of the location.

A biopsy may not be necessary in every case because compound odontomas are usually benign tumors with a slow growth rate and asymptomatic. If the lesion displays symptoms, including signs of infection and worrisome characteristics, a biopsy may be necessary.

**Differential Diagnosis**

Supernumerary tooth, cement blastoma, ossifying fibroma, ameloblastic fibroma, florid osseous dysplasia, and osteoma. These osseous lesions have certain radiographic features with odontomas that may often be mistaken. Including the potential of a benign tumor of the jawbones. Odontogenic tumor with epithelium and mesenchyme within. Formation of cementum and bone, as well as radiographic radiopaque material that is well defined.

**Treatment**

The treatment plan for the asymptomatic lesion involves monitoring the lesion with dental checkups and documenting any changes in its size. If a patient reports pain and receives information on how to manage their discomfort, they must provide their informed consent to any findings. Decisions will be made in collaboration with other dental health professionals. Since complete removal reduces the probability of recurrence, excision is recommended. After surgery, precautions must be followed to ensure complete removal and avoid recurrence.

**Prognosis**

If there are alterations and interference with eruption of the permanent teeth and cystic changes, benign tumor, augmentation, immediate intervention, and early discovery will give an early prevention of results. Normal tooth eruption and dental health are preserved with surgical removal. Excision is the preferred course of treatment because to its low rate of recurrence after surgical removal. If left untreated, odontomas may enlarge, become more complex, inflame, or get infection. Effects on oral function include appearance, feeling bloated, and abnormal features. Whether or whether not treatment is received, home care is essential. To maintain overall oral health, routine edental examination are recommended to ensure there are no changes in size or signs of recurrence.

**Professional Relevance**

Compound odontomas should be recognized by dental professionals, as they may represent an abnormal malformation lesion. When it comes to preventive care and patient education that promotes oral health, dental hygienists are the first line of defense. Patients can express their concerns and discomfort at a routine visit, and they will be recommended of radiographs that are necessary. Dental hygienists will be better prepared to propose a treatment plan if they can distinguish odontomas from other ossified bone lesions. Implementing the treatment plan into action and making appropriate specialist referrals for the patient.

**Citations**

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