

Unraveling the Enigma of Odontome: A Spectacular Case Report

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Abstract: This is a case report of clinical case reported at oral medicine depart of symptomatic odontome in the posterior upper and lower right region. Cone beam computed tomography (CBCT) was performed for precised 3-D imaging. The treatment protocol includes surgical enucleation of odontome and super numery tooth.



Introduction

A 32 year old female patient reported to the department of oral medicine and radiology with chief complain of pain in lower and upper right back tooth region of jaw from last 10 days.

Pain reported is sharp, continuous, radiating towards head and aggravated on mastication patient reported with no past medical history. Diet of patient is mixed, and she brushes once daily with a toothbrush and manjan.

On intraoral examination the area #46, #26 were tender on percussion with overhanging filling was observed at the same region. There was a bulge observed at #46 region which was tender on the percussion

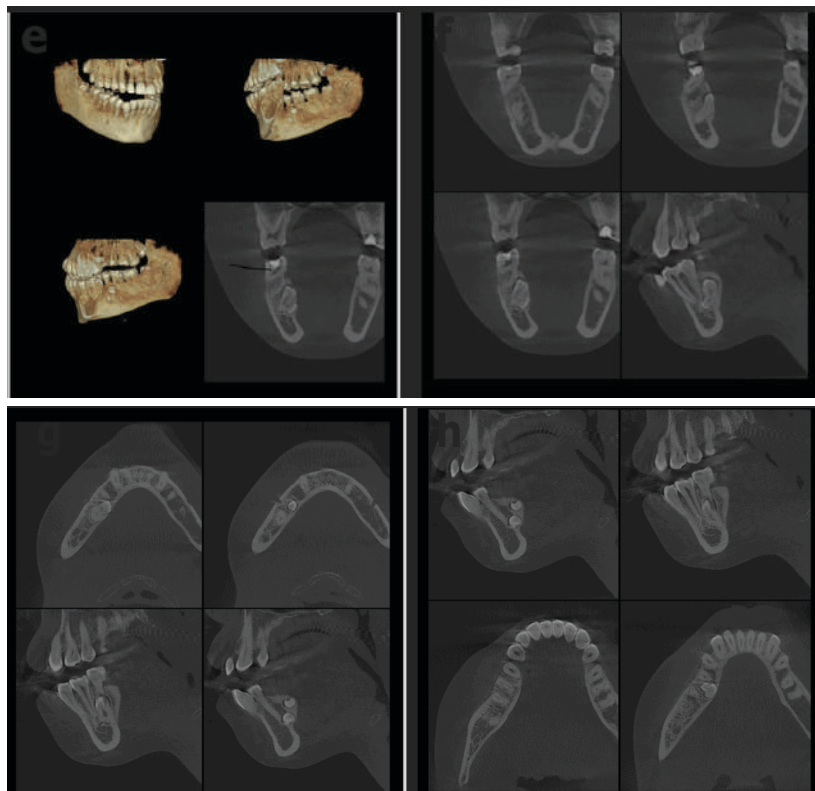
CBCT was advised to the patient.



a, b) Patient front view and lateral view with no swelling



c, d) Intraoral images showing buldge at #46 region



e,f,g,h) Coronal cone beam tomography scans revealing impacted supernumery tooth and odontoma present adjacent to the lingual cortex

Final diagnosis after CBCT

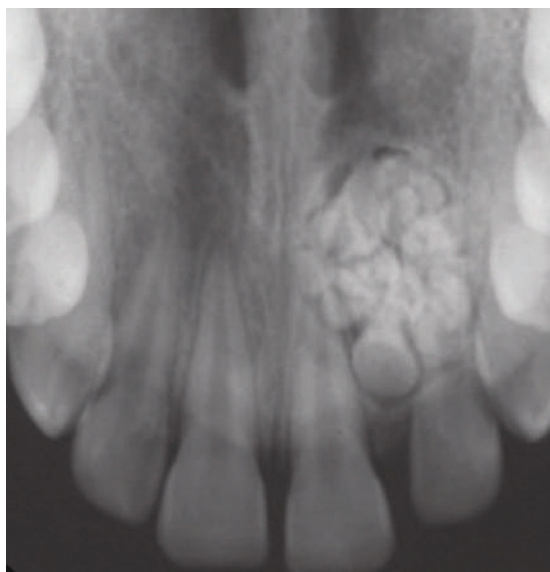
1. Restored tooth relation to 46 with overhanging restoration.
2. Irregular radiopacity present in inter radicular region of 46 and 45 mimicking tooth structure suggestive of odontoma
3. Evaluation of Odontoma:
 - Odontome present adjacent to lingual cortex.
 - Lingual cortical plate resorbed for the eruption of odontome.
 - Roots of 46 adjacent to the crown of odontome.
 - Roots of the 46 not resorbed and present buccal to the odontome.
 - Odontome has bifurcated crown suggestive of geminated tooth bud.
 - Round peri coronal radiolucency present with distinct borders suggestive of dilated follicular space.
 - Bifurcated crown of the odontome present occlusally and horizontally to the periapical region of 25.
 - Distance of the bifurcated horizontal crown from the apex of 45 is 0.68 mm.
 - Distance of the odontome from the anterior loop of the mandibular canal is 0.6 mm.
 - The [1] fused root of the odontome overlaps the inferior alveolar canal causing discontinuity of the inferior alveolar nerve vigilant extraction recommended of the odontome.

Discussion

Odontomas are the [1] developmental malformation of the dental tissues. They are hamartomas also commonly known as odontome. They have all the basic histological structures of a tooth but in a disoriented fashion or may differ morphologically. They are odontogenic in origin and generally found between 10-20 years old. Most common site are [3] anterior maxilla and mandible [4] Odontomas can be classified as [4] Compound and Complex Odontomas

Compound odontoma

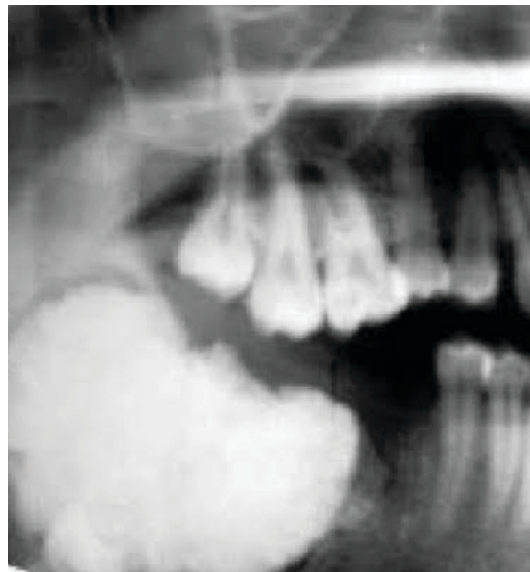
4. Probably produced by [6] localized multiple budding off from the dental lamina and formation of many tooth germs.
5. Consists of many separate, small tooth like structures.
6. Gives rise to a painless swelling in the anterior part of the jaws clinically.
7. Radiographically [3] seen as separated densely calcified tissue.
8. Histologically, the denticles are embedded in [2] fibrous connective tissue having a fibrous capsule.



Complex odontoma

9. Irregular mass of hard and soft dental tissue showing no resemblance to a tooth.
10. Clinically hard [7] painless swelling seen in young persons.
11. Radiographically seen as a [1] radiopaque irregular mass when fully calcified with areas of densely radiopaque enamel.

12. Histologically, tissues arranged in a disordered arrangement frequently in a radial pattern.
13. Multiple [6] branching of pulp gives a sponge like appearance.



Management

The mass of tissues are generally removed by [7] conservative method but in this clinical case it should be removed aggressive because it is located near to the inferior alveolar nerve. They generally respond to enucleation.

Conclusion

Odontomas are typically characterized by benign and asymptomatic lesions that may lead to disturbances in the eruption of teeth, such as delayed eruption of primary or permanent teeth or retention of primary teeth. The majority of patients are diagnosed with odontoma during a routine radiographic examination. While an odontoma is a tumor, it's a benign one and not uncommon. That alone is great news! However, odontomas usually require surgical removal. They're made up of dental tissue that resembles abnormal teeth or calcified mass that invade the jaw around your teeth and could affect how your teeth develop. Conventional surgery is considered to be the treatment of choice for odontomas. The WHO classifies odontomas as benign mixed odontogenic tumors. Given their behavior, they are considered hamartomatous lesions arising from dental tissues.

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