CASE REPORT

Erupted odontoma mimicking peg lateral incisor associated with impacted maxillary lateral incisor and canine – A rare clinical case report

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Abstract

Odontomas are the most common benign tumors of odontogenic origin. They are often asymptomatic, accidently discovered in routine radiograph and may interfere in eruption of associated teeth. Rarely, they erupt in the oral cavity. We present an unusual case report of partially erupted compound odontoma mimicking peg lateral incisor in the region of clinically missing maxillary lateral incisor, associated with impacted lateral incisor and canine. Erupted odontoma in anterior region associated with impacted permanent teeth may compromise dental and facial esthetics and, therefore, requires appropriate treatment.

Keywords:
Compound odontoma, erupted odontoma, impacted permanent teeth

Case Report

A 16-year-old female reported to the department of oral medicine and radiology with a chief complaint of smaller tooth in anterior maxillary region. The patient’s family history and medical history were non-contributory. The patient would not recall any history of trauma to orofacial region. Extraoral examination was unremarkable. Intraoral examination revealed the presence of small tooth similar to small peg lateral incisor in the region of clinically missing right maxillary lateral incisor [Figure 1]. A non-tender bulge was noted in palatal aspect of the right lateral incisor and canine region. Deciduous right maxillary canine was retained. Radiograph supplementation by occlusal and intraoral periapical view revealed a mixed radiopaque mass of multiple calcified small tooth-like structures surrounded by radiolucent line which was appreciated on superior and superomedial aspect of lesion in the right anterior maxilla in region of missing right lateral incisor. Permanent right maxillary lateral incisor and canine were found to be impacted [Figures 2 and 3]. Part of this radiopaque lesion erupted in the oral cavity in clinically missing lateral incisor region. Based on clinical and radiographic examination, a provisional diagnosis of erupted odontoma was made. The lesion was surgically exposed by
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giving palatal crevicular incision from maxillary right central incisor to the first premolar region. Entire lesion along with retained deciduous canine was removed. Postoperatively, the patient was prescribed antibiotics and analgesics for 5 days. Surgical specimen comprised six miniature teeth each having crown and root, which were diagnostic of compound odontoma [Figure 4].

Discussion

Odontoma, the term was named by Paul Broca and he defined odontoma as tumor formed by the overgrowth of transitory or complete dental tissues. Various etiological factors are attributed for the formation of odontoma such as local trauma, infectious/inflammatory process, odontoblastic hypersensitivity, hereditary anomalies such as Gardner, Hermann’s, and basal cell nevus syndrome, and alteration in genetic component responsible for controlling dental development.

Compound odontomas appear twice more frequently than complex odontoma in anterior region of maxilla. They are categorized into three types. Denticular type: Composed of two or more separate denticles, each having a crown and root or epithelium of Hertwig with distraction of dental hard tissue comparable to that found in tooth. Particulate type: Compound of two or more separate masses or particles bearing no macroscopic resembles to tooth and consisting of hard dental tissues abnormally arranged. Denticulo-particulate type: In this type, conglomerate masses or particles are present next to one other.

Odontomas are generally intrabony and their eruption into mouth is an extremely rare event. Till date, very scanty cases have been reported in literature. Hegde and Pal reported a case of erupted compound odontoma associated with maxillary second premolar impaction. Mehta et al. reported a

Figure 1: The erupted odontoma in missing right lateral incisor region

Figure 2: Occlusal view showing the erupted and impacted odontoma in anterior maxilla

Figure 3: Intraoral periapical view showing the impacted lateral incisor, canine, and odontoma

Figure 4: The surgically removed denticles and deciduous canine
case of small erupted compound odontoma in anterior maxillary region with all erupted teeth. Patil et al. reported two cases of erupted compound odontoma located in soft tissues in anterior maxilla. Uma reported a case of compound odontoma in anterior mandible with impacted left mandibular lateral incisor. Rai et al. reported a case of compound odontoma associated with impacted central incisor. In contrast to other published cases, the present case is of two impacted permanent teeth, retained deciduous tooth and partially erupted odontoma consisting of six miniature teeth of which one erupted into the oral cavity and mimicked a small peg lateral incisor in the region of clinically missing lateral incisor. Such clinical scenario has not been reported in literature.

Eruption mechanism of odontoma may vary from tooth eruption as odontomas lack periodontal ligament. Force caused by increasing size of odontoma may lead to sequestration of overlying bone or cause bone resorption, leading to its eruption. Bony remodeling of jaw which produces path of least resistance also has been attributed to eruption of odontoma. About 70% of odontomas cause pathologies in neighboring teeth such as devitalization, malformation, aplasia, malposition, delayed eruption, and cystic transformation. In our case, odontoma interfered with eruption of lateral incisor and canine leading to its impaction.

The treatment of choice is surgical removal of odontoma followed by histopathological analysis as ameloblastic fibro-odontoma, ameloblastic fibrodentinoma, and odontoameloblastoma have similar radiological appearances. In case of odontomas associated with impacted teeth, latter should be preserved and waited for spontaneous eruption or alternatively fenestrations followed by orthodontic traction are an indication. Periodic radiographic follow-up is required to evaluate the course of these teeth. In our case, surgical removal of odontoma was done and the patient was kept in wait for spontaneous eruption of lateral incisor and canine.

Odontomas rarely erupt in oral cavity and they often tend to be associated with impacted permanent teeth. Early detection facilitates simpler and less complex treatment approaches enhancing esthetics, function, and structural balance in the dentition.

References