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RESEARCH ARTICLE

TRISMUS SECONDARY TO INFECTED ODONTOMA: A RARE CASE REPORT.

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Corresponding Author*Amita Rani****Abstract**

Odontoma is a hamartomatous lesion of odontogenic origin involving both epithelial and mesenchymal tissues. Although, it is not an uncommon lesion yet in certain conditions it can lead to complications, if left untreated. A rare case of infected intraosseous compound composite odontoma associated with trismus, in mandibular third molar region is reported and successfully surgically managed.

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Introduction

Odontomas are the most common odontogenic tumours of the jaws and are characterized by their slow growth and non-aggressive behaviour. The World Health Organization (WHO) (2005) classified odontoma as a benign odontogenic tumor composed of odontogenic epithelium and odontogenic connective tissue with dental hard tissue formation (1). Clinically, three types of odontomas are recognized in the literature: intraosseous (central), extraosseous (peripheral) and erupted odontoma. The intraosseous odontoma occurs inside the bone and may erupt into the oral cavity. The extraosseous odontoma occurs in the soft tissue (2). Odontomas often cause various disturbances in the eruption and position of the teeth. Therefore, the most frequent cause of discovery of an odontoma is the retention of permanent teeth, perhaps with the persistence of the primary tooth (3). Whereas in this case report, odontoma discovered as a result of patient's complaint of progressively reduced mouth opening and pus discharge. Radiologically, the appearance varies from radiolucent during the early stages of the tumor development to radiopaque depending on the presence of dentine and enamel in the lesion (1). The pathogenesis of odontoma is not clear, but trauma during primary dentition, heredity and genetic mutation are possible etiologic factors (4).

Case Report

An eighteen years old male patient reported with chief complaint of reduced mouth opening since last two-three months. He had history of progressive decrease in mouth opening without any episode of toothache or any kind of trauma to face. The decreasing mouth opening was not associated with TMJ clicking. On clinical examination mouth opening was 24mm. Intraoral examination revealed slightly inflamed and tender soft tissue bulge in mandibular left third molar region. On palpation, scant pus expressed from third molar region. So panoramic radiograph (OPG) was advised along with routine blood investigations. OPG revealed a 2x1.5cms radiopaque halo surrounding radiolucency, occupying left mandibular third molar region. This lesion was partially (apically) surrounded by radiolucent zone. Inferior Alveolar canal was inferiorly displaced (fig 1).



Figure 1: OPG showing composite odontoma in mandibular left third molar region.

Correlating the clinical and radiological features, it was decided to surgically remove the lesion under local anesthesia, after completing the antibiotic course of three days. Ward's incision was used and full thickness mucoperiosteal flap was raised to gain adequate exposure of surgical site. Using bur technique for guttering, lesion was separated from surrounding normal bone. The lesion was enucleated in toto. It had gross resemblance to a tooth but size was significantly more (fig 2). On follow up patient was asymptomatic and mouth opening gradually improved.



Figure 2: Surgically removed compound composite odontoma.

Discussion

The term odontoma was first used by Paul Broca in 1867 who defined it as “tumors formed by the overgrowth of transitory or complete dental tissues” (5). Howard listed odontoma as the fourth category of supernumerary tooth however; this category is not universally accepted. The term “odontoma” refers to any tumor of odontogenic origin (6). Most authorities, however accept the view that the odontoma represents a hamartomatous malformation rather than a neoplasm (7). The lesion is composed of more than one type of tissue and consequently has been called as composite odontoma. Two separate types have been described: the diffuse mass of dental tissue which is totally disorganized, known as a complex composite odontoma, whereas the malformation which bears some superficial anatomical similarity to a normal tooth is referred to as a compound composite odontoma. Complex odontomas tend to occur in the posterior region of the jaw and compound odontomas are more common in the anterior maxilla (8). Although they are commonly asymptomatic, clinical indicators of odontoma may include retention of deciduous teeth, non-eruption of permanent teeth, pain, expansion of the cortical bone and tooth displacement. Other symptoms include anesthesia in the lower lip and swelling in the affected area. In this case, we reported compound composite odontoma in mandibular posterior region where trismus was the first clinical sign that led to discovery of odontoma and it was successfully surgically managed. The radiological appearance of complex odontomas depends on their stage of development and the degree of mineralization. The first stage is characterized by radiolucency due to lack of calcification. Partial calcification is observed in the intermediate stage, while in the third stage, the lesion usually appears radio-opaque, with amorphous masses of dental hard tissue, which are surrounded by a thin radiolucent zone, which corresponds to the connective tissue capsule histologically [9]. Our case showed well-defined, mixed radiolucent-radio-opaque lesion, which was surrounded by a radiolucent halo. The surgical treatment consists of complete enucleation and curettage of the lesion and the surrounding area. The recurrence is occasional, but uncommon. Odontoma can also manifest as a part of some syndromes: Gardner syndrome, Hermann syndrome and basal cell nevus syndrome. Odontoma should also be differentiated from cementoblastoma, osteoid osteoma or cement-ossifying fibroma (10).

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