Case Report

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Two Dentigerous Cysts in 12 Years Old Children: Report of an Unusual Case

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ABSTRACT

Background: Dentigerous cysts are common cysts of the jaws. They are associated with the crowns of permanent teeth, most frequently associated with impacted mandibular third molars. The other teeth that are commonly affected are, in order of frequency, the maxillary canines, the maxillary third molars and, rarely, the central incisor. Radiographically, the cyst appears as ovoid well-demarcated unilocular radiolucency with a sclerotic border. The present case reports describes the surgical enucleation of a 2 dentigerous cysts involving the lower permanent canine and upper premolar of maxilla in 12 years old nonsyndromic children.

Keywords: Children, Dentigerous cyst, Non syndromic.

INTRODUCTION

Odontogenic cysts in children are rare with only 1% of the radicular cysts and 9% of the dentigerous cysts occurring in the first decade of life[1]. A dentigerous cyst is an epithelial-lined developmental cavity that encloses the crown of an unerupted tooth at the cementoenamel junction. Dentigerous cysts are the second most common odontogenic cysts after radicular cysts, accounting for approximately 24% of all true cysts in the jaws[2]. Dentigerous cysts are frequently discovered when radiographs are taken to investigate a failure of tooth eruption, a missing tooth or mal alignment. There is usually no pain or discomfort associated with the cyst unless it becomes secondarily infected. Radiographs show a unilocular, radiolucent lesion characterized by well-defined sclerotic margins and associated with the crown of an unerupted tooth. While a normal follicular space is 3 to 4 mm, a dentigerous cyst can be suspected when the space is more than 5 mm[3].

Dentigerous cysts may cause displacement of adjacent teeth and resorption of teeth roots[4]. Most dentigerous cysts are solitary. Bilateral and multiple cysts are usually found in association with a number of syndromes including cleidocranial dysplasia and Maroteaux-Lamy syndrome[5]. Here we reported 2 cases of dentigerous cyst in 12 years old non syndromic children.

CASE REPORT

A 12 years old boy reported to the dental department of medical college with a complaint of slight swelling along with extraoral sinus on Right side of mandible since from last 2 months. Extra oral examination revealed slight swelling with extra oral sinus on Right parasymphysis of mandible. Intraoral examination revealed caries exposed and discolored Right lower deciduous canine as shown in Fig no 1 & 2. Patients past medical history were non-significant. There were no associated symptoms present.

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Fig 1: Showing caries exposed and discoloured Right lower deciduous canine.

Fig 2: Showing slight swelling with extra oral sinus on Right .parasymphysis of mandible.

Fig 3: Showing unolocular radiolucency present on Right Side of maxiila with unerupted first premolar.

Radiographic findings

A panoramic radiograph showed a unilocular radiolucency associated with impacted permanent canine on Right side of mandible with slight displacement of permanent lateral incisor. Another unolocular radiolucency was present on right side of maxiila with unerupted first premolar as shown in Fig 3.

Fig 4: Showing surgical area after enucleation of cysts with impacted canine and premolar.

Fig 5: Showing surgical area after enucleation of cysts with impacted canine and premolar.

Treatment

The clinical diagnosis was two dentigerous cysts. Under general anesthesia one buccal flap were raised in mandible and another in maxilla. Cysts were enucleated together with impacted canine and premolar as shown in Fig 4 & 5. Healing was uneventful, and one week after the operation, the surgical site showed good wound healing. Patient was under follow up for 3 months. Till this follow up period had no other complaint.

Pathology

The submitted specimen consisted of two sacs of soft tissue. Microscopic sections of both specimens were similar, showing cyst walls composed of fibrous tissue and lined by stratified

squamous, non-keratinized epithelium with Rushton bodies.

DISCUSSION

Although dentigerous cysts are common developmental cysts, but two dentigerous cysts in same patient are extremely rare. Bilateral or multiple dentigerous cysts are usually associated with the Maroteaux-Lamy (mucopolysaccharidosis, type VI) syndrome and cleidocranial dysplasia. Both are developmental conditions that are detected in young individuals with stigmata of the syndromes[9]. Bilateral dentigerous cysts are rare in the absence of an underlying syndrome or systemic disease[9]. The D C is the second most common odontogenic cyst, with periapical cyst being found more commonly. It presents mostly in the second or third decade of life in the maxillary or mandibular third molar or maxillary canine regions[6].

It can originate from any tooth, including supernumerary tooth[7]. The DCs are mostly asymptomatic and may be found on routine dental radiographic check-up. They may also cause symptoms like pain or swelling with the enlargement of the cyst size[8]. Radiographically dentigerous cyst appears as a well circumscribed, unilocular, usually symmetric radiolucency around the crown of impacted tooth[10]. The formation of dentigerous cysts appears to be due to accumulation of fluid either between reduced enamel epithelium and enamel or in between the layers of enamel organ[11].

Although dentigerous cyst is more common in mandibular jaw,in the present case maxillary jaw was also effected. As most of the authurs reported presence of carious deciduous teeth in relation to the development of dentigerous cyst. The same is present in present case too.

According to size of the cyst we decided to perform the enucleation of both cysts. The removal of permanent teeth is necessary if it has suffered arrested development or is hopelessly displaced. In the present case the development of premolar tooth root was totally hampered in maxilla and gross displacement of permanent canine in present in mandible.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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