INTRODUCTION

Dentigerous cyst is formed due to collection of fluid between reduced enamel epithelium and enamel surface of a formed tooth.

The association of a dentigerous cyst with supernumerary teeth constitutes only 5–6% of all dentigerous cysts. [1] We report such a case of dentigerous cyst of impacted supernumerary tooth which was treated by enucleation along with removal of both the impacted supernumerary teeth.

Presence of supernumerary tooth in permanent dentition varies from 0.1% to 3.6% in the general population. [2] According to Brook Supernumerary Tooth were present in 2.1% of permanent dentitions. [3] A retrospective study by Asaumi et al. revealed that midline diastema was present in 10% of cases with Supernumerary Tooth. [4] Dentigerous cysts cause a variety of problems such as

A Rare Case report on Dentigerous Cyst Associated with Impacted Supernumerary Tooth

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ABSTRACT

Dentigerous cyst is an odontogenic cyst of developmental origin, formed due to collection of fluid between reduced enamel epithelium and enamel surface of a formed tooth. In a case of dentigerous cyst the history and radiological investigations suffice and leads to diagnosis and a treatment plan. Here, we report a case of a 7 year old boy with painless swelling in right upper jaw since 1 month, on examination and further investigations, it was found to be a case of dentigerous cyst of an impacted maxillary supernumerary tooth, which is a rare entity. During surgical exploration 2 supernumerary teeth were found which were surgically removed with enucleation of the cyst. It is quite rare to see dentigerous cyst caused due to a supernumerary tooth and here in this case, there were 2 supernumerary teeth, thus making it a rare entity requiring a detailed discussion and publication for the same.

Keywords: Impacted supernumerary tooth, dentigerous cyst, trapezoidal flap
swelling due to bone expansion, impaction of involved teeth, displacement of adjacent teeth and structure, and are sometimes associated with carcinomatous transformation.[3] Similar complaints of swelling, impaction, displacement of adjacent teeth were seen in our case.

CASE REPORT

A 7 year-old boy reported to the Department of ENT with chief complaint of a painless swelling in the right upper jaw since 1 month. There was no history of trauma and patient observed a swelling above the right maxillary canine that gradually increased in size over the period of 1 month after which he came to our OPD.

Intraoral clinical examination revealed a firm, diffused swelling above right maxillary canine which was not moveable in any direction. The palatal and labial mucosa were normal.

Differential Diagnosis

On the basis of these clinical findings, differential diagnosis included: Dentigerous cyst, Adenomatoid odontogenic tumour, Nasopalatine cyst, Eruption cyst, Radicular cyst (periapical cyst), Lateralized radicular cyst.

Investigations

Radiographic investigations were carried out to confirm type and extent lesion. The panoramic radiograph (OPG) revealed the lesion extended from the right canine to right first premolar region. A supernumerary tooth was visible in the right aspect of the cyst, resulting in resorption of cortical bone at this region. Computed tomography scans showed a hypodense image, well-defined, associated to unerupted teeth which was extending towards the floor of maxillary antrum.

Treatment

On the basis of clinical presentation and investigations the final diagnosis was made out to be dentigerous cyst associated with a supernumerary tooth. The lesion was totally enucleated together with both the supernumerary teeth under general anesthesia. Trapezoidal flap was created after giving an inverted U shaped incision, which is formed by horizontal incision along the gingivae and two oblique vertical releasing incisions.

DISCUSSION

Approximately 16.6% of all jaw cysts are dentigerous
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The association of a dentigerous cyst with supernumerary teeth constitutes only 5–6% of all dentigerous cysts. The cyst is generally found in individuals between 10 and 30 years of age, affecting males predominantly at rate of 1.6:1. Supernumerary teeth often cause developmental and eruption disturbances of adjacent permanent teeth e.g. crowding, displacement, diastema, radicular resorption and dentigerous cyst formation.

Dentigerous cysts are easily diagnosed radiographically because of their radiopaque image. CT tells the exact location of the impacted tooth, the full extent of the lesion and helps to identify erosion of cortical bone and invasion into adjacent soft tissues, so contributing to proper treatment planning. Radiographically, dentigerous cysts appear as well-defined unilocular or multilocular radiolucency enclosing the crown of an unerupted tooth.

The standard treatment for a dentigerous cyst is Enucleation along with extraction of the associated supernumerary tooth. Isolated lesions in young patients, where preservation of the teeth is required, marsupialization is the preferred treatment option. In the present case, surgical removal of the impacted supernumerary teeth and enucleation of the associated cyst was performed.

CONCLUSION

Impacted supernumerary teeth are more prone to pathology as in this case, so to avoid complications like palatal fistula, oro antral fistula early diagnosis and proper treatment plan is necessary.

CONFLICT OF INTEREST:
The authors declared that no conflict of interest.

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