



Infected Dentigerous Cyst Associated With Ectopic Third Molar at the Sigmoid Notch – An Unusual Rare Case Report

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Abstract

Dentigerous Cysts are common developmental Odontogenic Cysts arising from the crowns of impacted, developing or unerupted teeth, mainly the mandibular third molars. The most common location of these cysts is the angle of the mandible. Ectopic third molars have been rarely reported in the literature, in the condylar region, coronoid region, ascending ramus, maxillary sinus, infratemporal fossa and sigmoid notch. The following is a case report of a dentigerous cyst in the sigmoid notch associated with an impacted third molar and an extraoral draining sinus.

Keywords: Dentigerous Cyst, Sigmoid Notch, Ectopic 3rd Molars.

Introduction

The term Dentigerous Cyst was first coined by Paget in 1853 implying a cyst arising from the dental follicle of an impacted, developing or unerupted tooth.² It is the most common odontogenic cyst after radicular cyst, seen in the posterior mandible or maxilla and usually associated with third molars¹. Cystic lesions associated with ectopic teeth

have been previously reported. Dentigerous cysts (DC) are mostly discovered accidentally on radiographic examination or clinical examination of bony expansion. Rarely the cysts get infected producing pain and purulent discharge from extraoral or intraoral sites.

We report one such rare case of DC associated with an impacted third molar at the mandibular sigmoid notch, associated with an extraoral draining sinus at the lower border of mandible.

Case Report

A 45-year-old male patient visited our Department of Oral and Maxillofacial Surgery, with the chief complaint of intermittently increasing and regressing swelling on the right side of the face associated with pain since last 6 months. A history of pus discharge from the same region was given by the patient, on many occasions over the past 6 months.

On clinical examination, a swelling on the right side of the face along with a draining sinus at the right angle region was revealed. No communication of the extraoral draining sinus was found intraorally. A 48 was found to be missing

intraorally. An Orthopantomographic evaluation revealed the ectopic location of 48 in the sigmoid notch region in an inverted position, surrounded by a well-defined unilocular radiolucency with well-defined corticated borders (fig. 1). Perforation of the lateral cortex of ramus below the sigmoid notch was seen on 3D CT scan.



Fig.1. OPG showing impacted 48 associated with a cystic lesion at the sigmoid notch.

Under adequate levels of General Anesthesia, surgical exploration of the lesion was done and it was completely enucleated out along with removal of the tooth (fig 2). All the margins of the lesion were thoroughly curetted and closure was done. The tissue around the extraoral draining sinus was excised. Histopathologic examination of the lesion was suggestive of typical 3-4 layered lining of the dentigerous cyst with inflammatory connective tissue stroma and inflammatory infiltrate with lymphocytes, plasma cells and macrophages.



Fig. 2 Surgical exposure of the lesion showing the impacted 48



Fig 3. Postoperative OPG of the patient

Discussion

Ectopic eruption of teeth may occur due to three reasons – disturbances during tooth development, pathologic processes displacing the tooth ectopically, or idiopathic². They have been rarely reported in the literature, in the condylar region, coronoid region, ascending ramus, maxillary sinus, infratemporal fossa and sigmoid notch.

Dentigerous cyst in association with an impacted tooth at the sigmoid notch is a rare entity. In dealing with such cases, it is important to take into account the risk of iatrogenic fracture of the condyle. Iatrogenic fractures can occur at the time of removal due to forces placed over the already weakened bone or 2-3 weeks later due to revascularization and resorption of the bony cortex. If a fracture does occur at the operative time, the surgeon should be prepared for fixation of the fracture. Enucleation is the only treatment modality recommended for the treatment of cystic lesions occurring in such inaccessible areas.

Conclusion

A due consideration to the iatrogenic fracture of condyle must be given. This case establishes an absolute indication for enucleation over marsupialization as the latter is not possible in inaccessible areas.

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