

Dentigerous cyst arising from a complex odontoma: an unusual presentation

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DESCRIPTION

A 21-year-old man presented with pain in the right posterior region of the jaw for 10–15 days. The pain was mild, dull and non-radiating in nature, beginning with slight pressure and relieved within seconds. Clinically, the patient was healthy with an unremarkable medical history. On inspection, the patient had congenitally missing mandibular molar teeth along with absence of clinical swelling intraorally. Panoramic radiograph showed an amorphous, dense, irregularly shaped radio-opacity surrounded by a well-defined radiolucency in the apical region of 46, 47 and 48, which extended anteriorly to involve an impacted mandibular first molar tooth (figure 1). Complete surgical excision was performed and tissue sent for histopathological examination. The soft tissue was separated from the calcified mass during the surgical removal. The cystic and calcified components needed different processing techniques for further investigations and hence each tissue sample was processed separately.

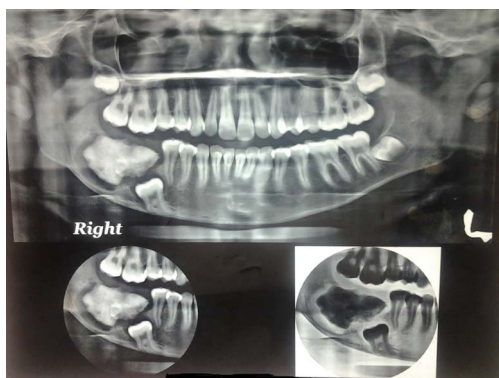


Figure 1 Panoramic radiograph showing mixed radio-opaque mass with a radiolucent rim associated with impacted mandibular molar.

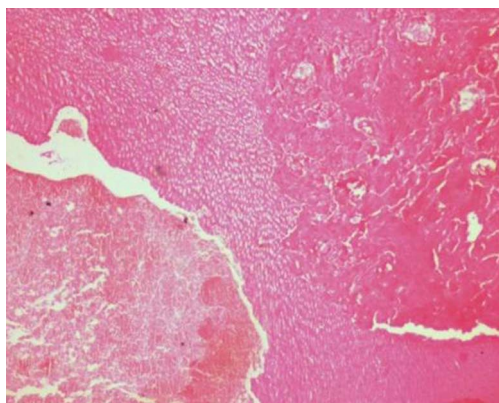


Figure 2 Photomicrograph of H&E stained section reveals haphazardly arranged eosinophilic stained material with a dentin-like structure.

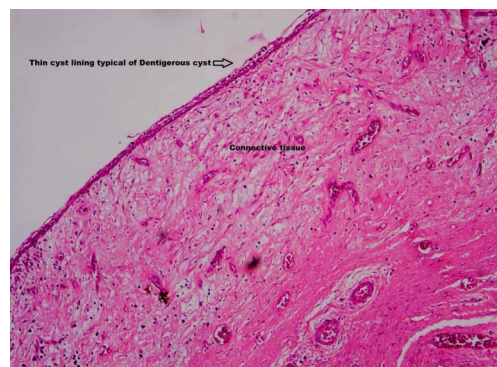


Figure 3 Photomicrograph H&E stained section showing a thin, non-keratinized epithelial lining similar to dentigerous cyst lining.

The microscopic examination of the hard tissue of the decalcified sections revealed eosinophilic material with a dentin-like structure (figure 2). The soft tissue was thin, non-keratinised epithelial cystic lining typical of a dentigerous cyst (figure 3). A final diagnosis of '*dentigerous cyst from a complex odontoma*' was rendered.

Odontomas are non-aggressive hamartomatous developmental malformations or lesions of odontogenic origin of unknown aetiology.^{1 2} They often remain asymptomatic and undiscovered until revealed by routine radiography.³

Dentigerous cyst is developmental in origin, mostly associated with an unerupted tooth or rarely on occasion with an odontoma.¹ When they occur concurrently, there is possibility of the combined lesion attaining a larger size and potential for significant jaw destruction.^{1 2} The potential for

Learning points

- ▶ Dentigerous cyst and complex odontoma are the most common odontogenic lesions occurring in the oral cavity and are seldom seen concurrently, resulting in misdiagnosis/dilemma.
- ▶ Despite the reported literature, dentigerous cysts arising from odontomas are rare entities and can cause significant jaw destruction.
- ▶ Few reports show neoplastic transformation such as ameloblastomas originating from dentigerous cysts. Hence the enumerated potential complication justifies its radiographical evaluation followed by confirmation of diagnosis by histopathological analysis for better prognosis.



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neoplastic change and invasion beyond the cyst wall justifies complete enucleation of the dentigerous cyst and underscores the importance of a histopathological examination.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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