



Fig.1 Extraoral Photograph.

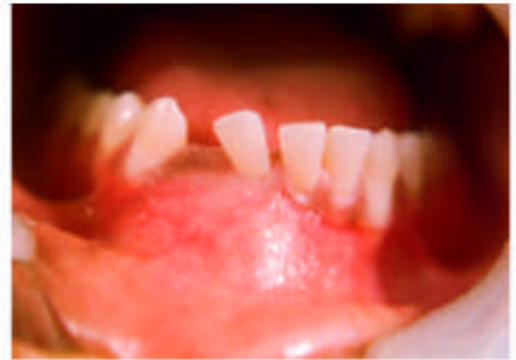


Fig.2 Intraoral and labial aspect showing obliteration of vestibule.



Fig.3. Showing intraoral and lingual aspect of the lesion.

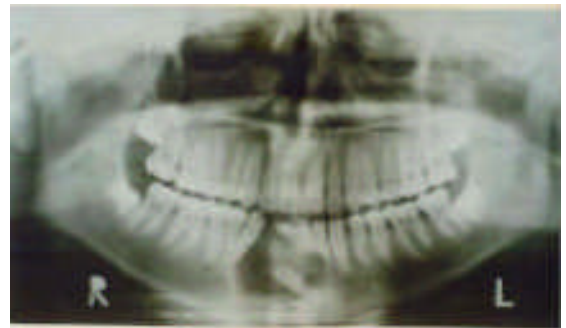


Fig.4. Orthopantomograph showing unilocular radiolucency with impacted mandibular lateral incisor.

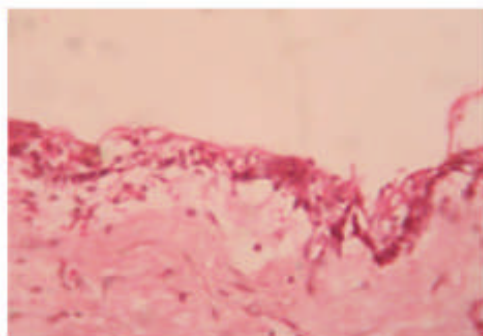


Fig.5 Microphotograph of the lesion.

failed to erupt or a tooth was missing or because teeth were tilted or otherwise out of alignment. Expansion of bone with subsequent facial asymmetry, extreme displacement of teeth, severe root resorption of adjacent teeth and pain were all possible sequelae brought about by continued enlargement of the cyst. Cystic involvement of an unerupted mandibular third molar might result in hollowing out of the entire ramus extending upto coronoid process and condyle as well as expansion of the cortical plate due to pressure exerted by the lesion. Dentigerous cysts may occasionally be painful particularly if infected¹². Radiographically, dentigerous cysts typically appear as a well circumscribed, unilocular, usually symmetric radiolucency around the crown of impacted tooth¹¹. The size of the radiolucency is larger than that of a normal dental follicle¹³. The cysts have well defined sclerotic margins unless they become infected. There may be displacement of the third molar to such an extent that it sometimes comes to lie compressed against the inferior border of the mandible or the ascending ramus. The Maxillary canine may be forced into the maxillary sinus as far back as floor of the orbit. Maxillary incisor may be found below the floor of the nose. In lateral dentigerous cysts the radiolucent area projects laterally from the tooth crown, particularly if the cyst is relatively large or if there has been displacement of the tooth. In the circumferential dentigerous cyst, the radiolucent area surrounds the entire crown of the tooth, without involving the occlusal surface, so that the tooth may erupt through as 'through the hole of a doughnut'. Craig demonstrated paradental cysts that occurs on the lateral aspects of the roots of partially erupted third molars where there is an associated history of pericoronitis. Radiographically there is a well demarcated radiolucency distal to the partially erupted tooth^{11,14}.

Dentigerous cysts have a greater tendency than other simple jaw cysts to produce resorption of the roots of adjacent teeth. Dentigerous cysts' potential for root resorption may be derived from its origin from the dental follicle and the ability of the latter to resorb the roots of deciduous predecessors^{14,15}. Arendorf had suggested that prostaglandin 2, may play a role in the resorption of cementum and dentine⁷.

Dentigerous cysts usually show a thin fibrous cyst wall derived from the dental follicle, consisting of young fibroblasts widely separated by stroma and ground substance rich in acid mucopolysaccharide¹¹. The epithelial lining is usually made up of reduced enamel epithelium, consisting of 2-4 cell layers of flat or cuboidal cells. Characteristically, the epithelial lining is not keratinized, although in cases in which there is secondary inflammation, epithelial hyperplasia is noted¹⁶.

Case report:

A 16 year old male patient attended the department of Oral Medicine and Radiology, Govt Dental College and Hospital; Hyderabad with a complaint of painless swelling in the chin since two months. Initially the swelling was small and gradually increased in size and was associated with mobility of lower front teeth.

Extraorally the face was asymmetrical (**Fig.1**) due to fullness in the right side of the chin obliterating the mentolabial sulcus. There was a diffuse swelling measuring about 2 x 1.5 cm extending anteroposteriorly from the symphysis menti to the parasymphysial region and superoinferiorly from the mentolabial sulcus to the inferior border of the mandible. The skin over the swelling was normal. There was neither local rise of temperature nor regional lymphadenopathy.

Intraorally there was an oval swelling (**Fig. 2 and Fig. 3**) measuring about 3.5 x 2 cm extending from 32 to 43 and the vestibule was obliterated from 32 to 43. The surface of the swelling was smooth. The swelling was hard and compressible in the centre. There was expansion of buccal and lingual cortical plates. 42 was missing. Grade II mobility of 31 and 41 was observed. Extrusion and distolabial displacement of 41 was also observed.

Orthopantomograph (**Fig. 4**) showed regular unilocular radiolucency surrounded by a sclerotic border extending from 33 to 43 and was associated with impacted 42 near the inferior border of the mandible. There was displacement of 41, 31 and 43 and resorption of roots of 31 and 41. On aspiration, 2ml of straw colored fluid was obtained. Based on the abovesaid findings a diagnosis of dentigerous cyst was arrived at, and it was confirmed with histopathology (**Fig. 5**).

Discussion

Jaws are most commonly affected with cysts rather than any other bone of the skeleton. The major categories usually are radicular cysts, dentigerous cysts and odontogenic keratocysts. The dentigerous cyst is the second most common odontogenic cyst. It is also the most common cyst that encloses the crown of an unerupted tooth. The case reported showed findings resembling the clinical features of dentigerous cysts seen in the review of literature. The patient had noticed the painless slowly growing swelling for 2 months, associated with the mobility of lower front teeth. Intraorally the swelling was hard and compressible in the centre with the expansion of buccal and lingual cortical plates. Missing 42 and grade II mobility of 31 and 41 was observed. Extrusion and distolabial displacement of 41 was observed. A provisional diagnosis of dentigerous cyst and differential diagnoses of ameloblastoma, odontogenic keratocyst were considered. Orthopantomograph showed regular unilocular radiolucency surrounded by a sclerotic border, associated with an impacted 42 which is displaced to the inferior

border of the mandible. There was displacement of 41, 31 and 43 and resorption of roots of adjacent teeth, i.e., 41 & 31. 2ml of straw colored fluid was observed upon aspiration.

Dentigerous cysts are commonly associated with mandibular and maxillary third molars followed by the canines. Involvement of mandibular lateral incisor is rather uncommon, even rare. Hence the case is reported and discussed. Enucleation along with the removal of the involved tooth is the definitive management. Exteriorization or marsupialization of the cyst is recommended in extensive lesions. Recurrence is relatively uncommon. Besides the possibility of recurrence, following incomplete surgical removal the potential complications of dentigerous cyst include development of ameloblastoma, epidermoid carcinoma or even mucoepidermoid carcinoma¹².

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