Dentigerous Cyst Associated with Impacted Third Molar

ABSTRACT
A dentigerous cyst is an odontogenic cyst associated with the crown of the impacted or unerupted teeth. Such cyst remains initially completely asymptomatic unless when infected and can be discovered only on routine radiographic examination. Here is a case of dentigerous cyst, present in left mandibular region associated with cortical expansion and facial asymmetry which has been enucleated and the tooth extracted surgically is discussed in present case report.

Keywords: Case report, Dentigerous cyst, Ectopic tooth, Impacted, Odontogenic cyst.

CASE REPORT
A 20 years old female patient reported to our clinic with chief complaint of swelling on the lower left side of her face which was present since 3 months. The patient gave history of pain in that region since 1 month (Fig. 1). Extraoral examination revealed swelling in the left mandibular region near the angle of mandible and extending inferiorly to the lower border of the mandible. The swelling was firm in consistency and tender on palpation. Intraoral examination revealed a swelling extending laterally from distal surface of mandibular left first molar, inferiorly obliterating vestibule and superiorly up till gingival margin. Slight tenderness was noticed on percussion with first and second molar and grade II mobility on left second molar.

The frequency of dentigerous cyst formation has been estimated to constitute 1.44 per 100 unerupted teeth. Furthermore, the risk for individual teeth to develop dentigerous cyst varies considerably. In case of mandibular third molars, the frequency of impaction is roughly the same as that of cyst formation, whereas maxillary third molars have a much higher frequency of impaction than cyst involvement, suggesting that this tooth has a much lower relative risk of developing a dentigerous cyst than its mandibular counterpart. Similarly, the risk of cyst formation around the crowns of unerupted mandibular first premolars, maxillary incisors, or mandibular second molars is very high, although the frequency of failure of eruption of these teeth is extremely low.

Most dentigerous cysts are asymptomatic but may attain large size with resorption of the roots of teeth till it manifests clinically or radiographically. Treatment of cyst consists of removal of unerupted tooth. Prognosis is excellent and recurrence is rare if completely removed.
site showed good healing the extraoral swelling was
decreased (Fig. 3) 1 month OPG showed no evidence of
recurrence of the cysts (Fig. 4).
On the basis of clinical and radiographic findings, the
present case was diagnosed as dentigerous cyst of the
inflammatory origin involving the unerupted third molar.

DISCUSSION

A dentigerous cyst is an odontogenic cyst, thought to be
of developmental origin-associated with the crown of an
unerupted tooth. The cyst cavity is lined by epithelial
cells derived from the reduced enamel epithelium of the
tooth forming organ. Regarding its pathogenesis, it has
been suggested that the pressure exerted by an erupting
tooth on the follicle may obstruct venous flow inducing
accumulation of exudate between the reduced enamel
epithelium and the tooth crown.

In addition to the developmental origin, some authors
have suggested that periapical inflammation of nonvital
deciduous teeth in proximity to the follicles of unerupted
permanent successors may be a factor for triggering this
type of cyst formation.

Histologically, a normal dental follicle is lined by
enamel epithelium, whereas a dentigerous cyst is lined
by nonkeratinized stratified squamous epithelium. Since,
the dentigerous cyst develops from follicular epithelium
it has more potential for growth, differentiation and
degeneration than a radicular cyst. Occasionally, the wall
of a dentigerous cyst may give rise to a more ominous
mucopidermoid carcinoma. Due to the tendency for
dentigerous cysts to expand rapidly, they may cause
pathological fractures of jaw bones. On fine needle
aspiration, thin straw colored fluid is seen.

The radiographic appearance is that of a well-demar-
cated radiolucent lesion attached to the cervical area of
an unerupted tooth. Radiographically, a dentigerous cyst
should always be differentiated from a normal dental fol-
licle. Dentigerous cysts are the most common cysts with
this radiographic appearance. Radiographically, the cyst
appears unilocular with well defined margins and often
sclerotic borders but sometimes it may be multilocular
in appearance and may also have a continuous cystic
membrane. Infected cysts show ill-defined margins. The
most common location of dentigerous cysts are the
mandibular 3rd molars and the maxillary canines, and
they rarely involve deciduous teeth and are occasionally
associated with odontomes. A dentigerous cyst is often
treated by excision of the cyst along with the extraction
of the associated tooth. In case of a large cyst marsupia-
lization is done.
REFERENCES


