

## A DENTIGENOUS CYST IN SEVENTH DECADE

### Report of a case

(Received 21 February 1991)

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#### SUMMARY

Dentigenous cysts are benign clinical entities of maxillary sinus which are most commonly encountered in the second and third decade of life. An unusual case of Dentigenous Cyst which was diagnosed at seventh decade is presented with our literature review.

**Key Words:** Dentigenous cyst, Maxillary sinus

#### INTRODUCTION

Dentigenous cysts are benign clinical entities in maxillary sinuses. There is no sex or racial predilection and they are found most commonly in the second and third decade of life (1, 2). Surgical exploration is necessary for definitive diagnosis when suspicion of a dentigenous cyst exists. Treatment entails elimination of the cyst wall and extraction of the involved tooth (3). All material removed from the sinus should be submitted for histologic study to make a definitive diagnosis and to rule out malignancy. Dentigenous cysts have been associated with ameloblastomas and invasive squamous cell carcinoma (4-6). However, as in this case it may stay silent up to late decades without any complaint and discomfort to the patient.

**Key words:** Dentigenous cyst, Maxillary sinus

#### CASE REPORT

A 71 year- old otherwise healthy woman presented with complaining of minimal swelling and crepitation on her left cheek of 3 to 4 years duration. She had no other complaints such as headaches, epistaxis, nasal stuffiness or discharge, unpleasant taste, fever or tenderness.

On ENT examination, there was crepitation on the left maxillary sinus without tenderness. Other findings were negative except multiple absent teeth on maxilla and mandible. Waters projection revealed a toothlike structure in an opacified left maxillary sinus (Figure). Surgical approach was explained to the patient and scheduled. Exploration of the left antrum revealed thick cyst wall occupying nearly whole antrum which was filled with brownish caseified material. After emptying

the contents of the sinus, an erupted tooth (presumably third molar), located on the posterosuperior wall of the maxillary sinus was seen. Cyst wall and the tooth were removed completely. Lateral wall of the antrum was totally resorbed while the other walls were intact. Nasoantral window was opened and operation was completed without complication. Histopathological examination revealed stratified squamous epithelium showing chronic inflammation.

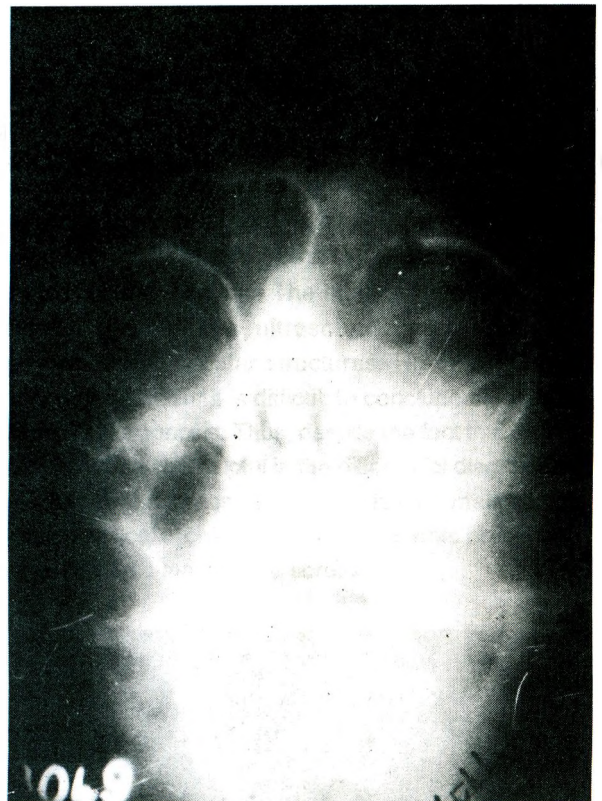


Figure. Upright Waters projection of the patient.

#### DISCUSSION

The dentigenous cyst originates through an alteration of the reduced enamel epithelium after the crown of a tooth has begun to form (7, 8). Therefore it effects

unerupted teeth, including the normal developing teeth or normal teeth that are impacted or misplaced in the maxilla or mandible (9-11). Less commonly the number of teeth are normal and the cyst is associated with a supernumerary tooth (3). In children a dentigenous cyst can present as an eruption cyst and consists of an accumulation of fluid in a dilated dental sac around the crown of a tooth about to erupt (12). The cyst ruptures as the tooth erupts and further treatment is usually not required (4,5).

The incidence of dentigenous cyst in the general population is approximately 0.6 % and they are found most commonly in the second and third decade of life without sex or racial predilection (1-3). 70% of dentigenous cysts are found in the mandible, most commonly at the site of the third molar, followed by the maxillary third molar, the maxillary canine and the second premolars in the mandible and maxilla in descending order (10).

Although the dentigenous cyst progresses slowly and may exist for several years being unnoticed, many of them have been reported to cause considerable tooth displacement local extension compromising adjacent anatomic structures and bone stability to the point of pathologic fracture and to undergo neoplastic transformation (2, 9, 13). Cases of carcinoma in situ, with further transition to invasive squamous cell carcinoma have been documented to occur within dentigenous cysts and the dentigenous cyst may be a precursor to an ameloblastoma (1, 4-6, 14).

When the dentigenous cyst is located to the maxillary sinus, symptoms usually occur late in the course of disease. These may include facial pain, paresthesias due to pressure on nerves, headache, trismus, unpleasant taste, nasal stuffiness and chronic discharge. Impingement of the nasal fossa may occur, causing obstruction and epistaxis. The palate may be pushed down, and impairment of phonation may occur (1, 2, 6, 15, 16). Clinical findings may include distortion of the face, crepitation, fluctuance and rarely exophthalmia due to impingement of the orbit (2, 16, 17, 18). An infected cyst can be present with fever, halitosis and pain. Fistulae formation that drain fetid pus intraorally or extraorally may occur (3).

On examination, absence of a tooth from the dental arch remind us the existence of a dentigenous cyst. In case where the number of teeth are normal, the cyst might have started on a supernumerary tooth. Panoramic radiograph or upright Waters projection usually reveals the unerupted tooth but the sine qua non for diagnosis is surgical exploration followed by pathological examination (19, 20).

Treatment requires elimination of the cyst wall and

extraction of the involved tooth unless a strong justification for marsupialization exists (19, 20).

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