

Globulomaxillary Cyst in a 16 year old male patient- A case report with review

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Abstract

Globulomaxillary cyst is an uncommon, specious cyst. It was traditionally described as a fissural cyst between the maxillary lateral incisor and canine teeth, secondary to proliferation of entrapped epithelium between the globular portion of the medial nasal and maxillary processes. They are painless, submucosal, non-odontogenic jaw cysts presenting as soft tissue swellings in the maxillary anterior mucolabial fold lateral to midline. Present case documents 16 year old male patient with diffuse extra-oral swelling present involving the philtrum and extending upto the nasolabial fold was observed on the left side of the face. Intra-orally well-defined soft and fluctuant swelling was present with pus discharge. Radiographically, well defined heart shaped radiolucency was observed in the left maxillary periapical region. The cyst was enucleated using intra-oral approach. Histopathological findings revealed pseudostratified ciliated epithelium with overlying inflammatory cells and goblet cells. Diagnosis of globulomaxillary cyst was confirmed.

Keywords: Non-odontogenic, Globulomaxillary cyst, Peri-apical radiograph, Radiolucency, Pseudostratified ciliated epithelium.

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Introduction

Globulomaxillary cyst is a rare fissural cyst found within the bone between the maxillary lateral incisor and canine. The globulomaxillary cyst is found within the bone at the junction of globular portion of the medial nasal process and the maxillary process, the globulomaxillary fissure, usually between maxillary lateral incisor and cuspid teeth.¹

Clinically the cyst develops between the maxillary lateral incisor and cuspid teeth. Intraorally, it presents as a soft-tissue swelling of the maxillary anterior mucolabial fold, lateral to midline leading to obliteration of the nasolabial fold. Radiographically. It exhibits as an "inverted pear-shaped radiolucency" in maxillary anterior radiographs. The globulomaxillary cyst often causes the roots of adjacent teeth to diverge.¹

Embedded in the literature since years, this cyst was included in the 1971 WHO classification of histologic typing of odontogenic tumors but removed in the second edition in 1992. Recently, it has been included as a fissural cyst secondary to proliferation of entrapped epithelium between the globular portion of the medial nasal and maxillary processes.^{2,3}

Case Report

A 16-year-old male reported to the Dental College with a chief complaint of an extraoral swelling since

seven days. History of present illness revealed that the swelling had increased in size since its initiation but was not associated with any pain, although was associated with pus discharge since last three days.

Extraoral examination revealed a localized diffuse swelling, involving the philtrum and extending anteroposteriorly from ala of nose to 2 cm below cheek prominence and superoinferiorly from 3 cm below inner canthus of the eye to the corner of mouth.

Intraoral examination revealed smooth, soft, fluctuant mass lateral to the cuspid teeth in the maxillary labial vestibule. The mass was well-defined red in colour [Fig. 1] and measured approximately 3×2 cm when palpated bimanually. On palpation the swelling was soft in consistency and non-tender on palpation. A clinical provisional diagnosis of periodontal abscess w.r.t 22 was given.

Radiological examination was performed in which intra-oral periapical radiograph revealed well defined heart-shape radiolucency extending upto the periapical region with displacement of roots associated with left maxillary lateral incisor and canine. Maxillary occlusal radiograph revealed well defined scooped out radiolucency extending from maxillary left lateral incisor upto second premolar. Panoramic Radiograph (OPG) with respect to left side revealed well defined heart shaped radiolucency with loss of lamina dura along with displacement of apical third portion of the roots. [Fig. 2]

Provisional diagnosis of globulomaxillary cyst was made on the basis of above findings. Patient's informed consent was availed for the surgical removal of these cysts. Medical history did not present any contraindication for the surgical procedure.

The cyst was enucleated [Fig. 3] using intraoral approach under local anesthesia and adrenaline

(1:80,000). Postoperative instructions were given. Tissue was sent for histopathological confirmation. Histopathological report revealed the H&E stained section showed pseudostratified ciliated epithelium overlying inflammatory cells. Epithelial lining also showed goblet cells. Stroma showed pre-dominated

mixed inflammatory cells and endothelial lined blood vessels. [Fig. 4]. Diagnosis confirmed the presence of globulomaxillary cyst. The patient was kept at follow up for three months. Iodoform dressing was changed at an interval of every fifteen days and the progress of the cystic lesion was recorded.



Fig. 1

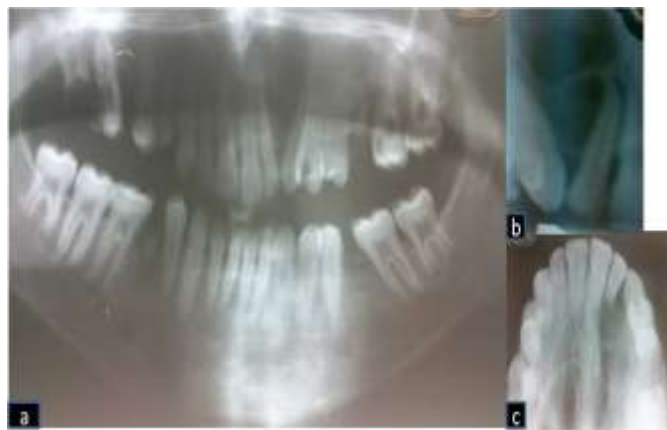


Fig. 2



Fig. 3

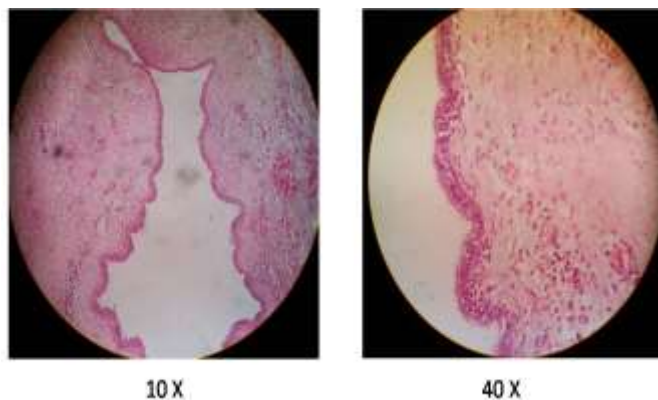


Fig. 4

Discussion

Classically, the globulomaxillary cyst was considered to be an inclusion or developmental cyst that arises from entrapped non odontogenic epithelium in the globulomaxillary suture.⁴

Fusion of facial processes does occur, and epithelium is entrapped in areas that later will lie between the maxillary lateral incisors and canines. The review argues that embryologically and histopathologically, globulomaxillary cyst should again be considered as an identifiable clinicopathological entity.⁵

The classic radiographic picture is of globulomaxillary cyst is inverted pear-shaped or tear-shaped, with well defined radiolucency between the separated roots of lateral incisor and canine. This should be differentiated from the anatomic depression in the labial plate between the maxillary canine and lateral incisor.⁶

The globulomaxillary area may be lined by pseudostratified, ciliated columnar epithelium. In our present case report the cyst pseudostratified ciliated epithelium with goblet cells which confirmed the provisional diagnosis of globulomaxillary cyst.⁷

Clinical differential diagnosis of globulomaxillary cyst included odontogenic keratocyst (OKC) and adenomatoid odontogenic tumor (AOT).⁸

Conclusion

In the presented case; clinical, radiographic and histological features of the lesions were suggestive of Globulomaxillary cyst residing on the alveolar surface) on the left side, which were successfully enucleated by a modification of intraoral sublingual surgical approach. In three follow-up, no evidence of complications or recurrence was observed.

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