

Pathological Mass from Maxillary Antrum : A Residual Cyst

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Abstract

Background & Objectives: Residual cyst is nothing else than a radicular cyst that is retained in the jaw after removal of the affected tooth. However, residual cyst in maxillary antrum is a rare finding.

Methods & Material: We present a case of 27 year old female with a chief complaint of drainage of pus from the upper jaw since one year. Patient had large swelling on the left upper back region of jaw, initially which was diagnosed as a space infection, I&D was performed following the extraction of left upper third molar under LA. Anti-biotics and analgesic were prescribed. Following treatment swelling subsided, although patient complained of pus or salty water discharge from the left upper sulcus of mouth on further weekly

follow up. Preliminary radiograph (OMV) was done which revealed a radiopaque mass in the left maxillary antrum. CT scan was done to ascertain the extension of pathology towards infra temporal region, which showed no such extension.

Enucleation of the mass was done by Caldwell luc procedure under general anaesthesia. Histopathologic diagnosis came as residual cyst. At two months follow up, the pus discharge had ceased.

Conclusion: Hence, this paper presentation adds one more case in the series of rare presentation of residual cyst of maxillary antrum.

Keywords: Maxillary Antrum, Residual Cyst, Radiopaque Mass.

Preliminary Discussion

Residual cyst as known is rarely found in maxillary antrum. It is the retained radicular¹ cyst after removal of the affected tooth. It is a true cyst consisting of a pathologic cavity that is lined by epithelium and is often fluid filled. The epithelial lining is derived from the epithelial rests of malassez, the epithelium may be derived in some cases from respiratory epithelium of the maxillary sinus when the periapical lesion communicates with the sinus wall. Cyst formation is a proliferation of the epithelial rests in the periapical area involved by the granuloma. Here, we report the case regarding the residual cyst in the maxillary antrum. This report provides the evidence of residual cyst in the maxillary antrum extending from the maxillary third molar.

Case Report

A 27 year old female, visited to the Department Of Oral and Maxillofacial Surgery with chief complaint of drainage of pus and salty water from the left upper back region of jaw since 17 months. Patient had previously come to the department of Oral and Maxillofacial Surgery 5 months back with a history of pus discharge since 1 year. Oral hygiene of the patient was not satisfactory, referred to the department of

perio-dontology for prophylaxis. In the department of periodontology, oral prophylaxis was done with curettage in the upper third molar region. patient was discharged with mouth wash. The patient reported back to the department of oral and maxillofacial surgery after 2 days with a large swelling in the left upper back region of the jaw. On the same day incision and drainage was performed intraorally under local anesthesia. Patient was kept under antibiotic coverage and advised for third molar extraction as third molar was grossly decayed. The patient refused for any further treatment, on next visit hence she was referred to the department of ENT for consultation, where the patient was prescribed with nasal drops & antibiotics. After 2 months of incision and drainage. Extraction of upper left third molar was performed under local anesthesia. After 17 months of treatment the patient came with complaint of previous problem, which she had faced earlier. There was no significant medical or family history. On examining extraorally there was no distinguished swelling.

On intraoral examination there was no swelling and pus discharge.

On obtaining radiographic occipito mento² vertex view, radio opacity in the left

maxillary sinus was present as compared to that of the right maxillary sinus. The radiopaque mass was oval in shape extending up to posterior wall of maxillary mass.

The CT scan examination was also performed to input more information about that radiopaque mass and to confirm the infratemporal extension of pathological mass from the maxillary antrum.

• Patient was finally admitted in maxillofacial ward for enucleation of pathological mass from maxillary antrum, Caldwell luc operation was performed to remove the lesion in the left maxillary sinus under GA.

After removal of pathological mass, lat-nasal antrostomy was done. Enucleated Pathological mass was sent for biopsy, histological exami-nation shows,

- Cystic lumen lined by epithelium
- Supported by connective tissue
- Areas of hemorrhage evident
- Connective tissue comprises of inflammatory cells, i.e lymphocytes.

Patient was discharged on 3rd post operative day with minimal swelling and discomfort, patient is on regular follow up since then.

Discussion

Residual cyst is a common odonto-genic cyst involving the apex of non vital tooth. It is



a cyst of inflammatory origin which is preceded by a chronic periapical granuloma and stimulation of cell rests of malassez found in the periodontal membrane. It is a radicular cyst that is retained in the jaw after removal of the affected teeth. The source of epithelium is cell rest of malassez, crevicular epithelium, sinus lining, or epithelium lining of fistulous tract. Radicular cysts are classified as epithelial lined inflammatory odontogenic cyst. They account for approximately 70% of all jaw cysts. The cyst most commonly involves adult males (3rd-5th decade). The involved tooth is nonvital and it rarely occurs in association with nonvital deciduous teeth. The smaller lesions are detected during routine dental radiography. Larger lesions are slow enlarging and hard swelling with expansion and distortion of cortical plates, disharmony in occlusion and facial asymmetry. Secondary infection can result in pain and occasionally a draining sinus. Imaging appearance: Most of the residual cyst have benign appearance. Severe bone destruction results in thinning of the cortical plates with springiness on palpation of jaw bone. Of the note the radiographic occipitontental view showed the radio-opacity in the left maxillary sinus compared to that of the right side.

Differential Diagnosis²⁻⁴

The differential diagnosis of a residual cyst include dentigerous cyst or an

odontogenic keratocyst. Mucous retention cyst and infection such as maxillary sinusitis were included. Antral polyps, rounded neoplastic mass, antrolith in the maxillary sinus and vascular lesion in the maxillary sinus were also included as the differential diagnosis.

Management⁵⁻⁸

Enucleation of the cyst and removal of the associated tooth is the treatment of choice of these lesions. The larger lesions are treated by enucleation or marsupialization. The specimen should be sent for pathologic examination to determine the risk of recurrence and the need of close follow up. If the histological diagnosis reveals of odontogenic keratocyst or unicystic ameloblastoma patient need to be monitored more closely. Recently Kahairi et al had described a case of endoscopic-assisted enucleation of radicular cysts. They concluded that endoscopic assisted enucleation of benign jaw cysts was a useful technique for large cysts because it provided superior intraoperative illumination, magnification and visualisation. This technique provided the surgeon with an alternative approach for the removal of large jaw cysts. It reduced postoperative morbidity and avoided unnecessary tissue damage.

Conclusion

Clinical picture can be misleading sometimes, hence a complete history

supported by essential investigations can allow a practitioner to establish a final diagnosis so as to formulate appropriate treatment plan. Residual cyst should also be considered in differential diagnosis of a pathological radio-opaque mass in maxillary antrum!

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Fig. 2: Preoperative Photograph, Intraoral



Fig. 4 & 5: Computed Tomography Scan Showing Radioopaque Mass in Left Maxillary Sinus

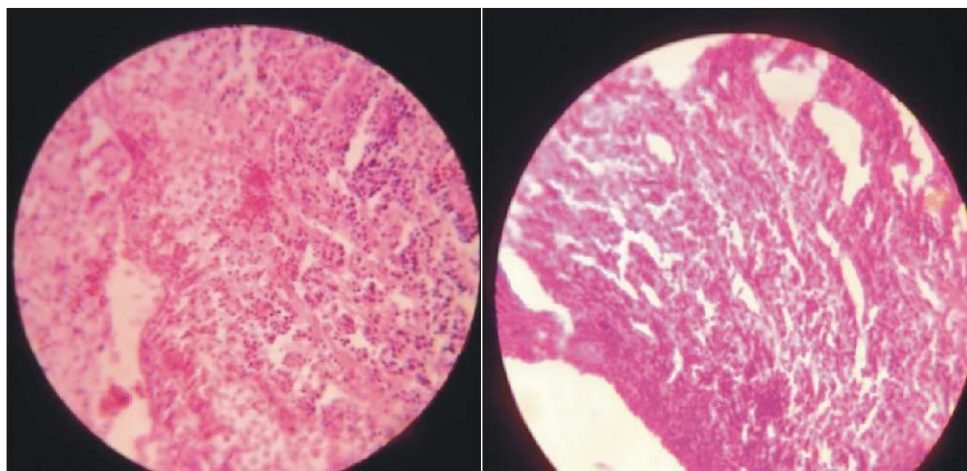


Fig. 7 & 8: Histopathological Picture of the Biopsied Specimen

