Plexiform Ameloblastoma- A Rare Case Report

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DOI: https://doi.org/10.5281/zenodo.8362122

A 22-year-old female patient reported to the Department of Oral Medicine and Radiology of Kothiwal Dental College and Research Centre with a complain of swelling in right side of the face since 1 month.

Swelling was associated with pain. Pain was gradual in onset, moderate in intensity, intermittent in nature.

No aggravating and relieving factors. Eventually pain was associated with pus discharge which increased on chewing and subsides on itself.

Medical, Dental, and personal history was unremarkable.

Clinical examination- On inspection the swelling was extending from right ala of nose to inferior border of mandible superio-inferiorly and from commissure of the lip to angle of the mouth antero-posteriorly measuring about 5cm x 7cm in diameter. Overlying skin appeared tensed and shiny (figure 1 and 2).

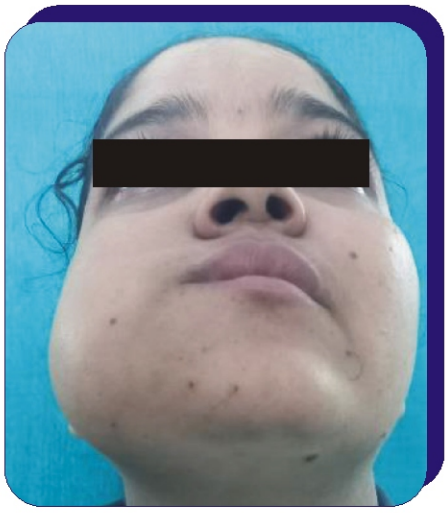


Figure 1- Extraoral- Frontal view.

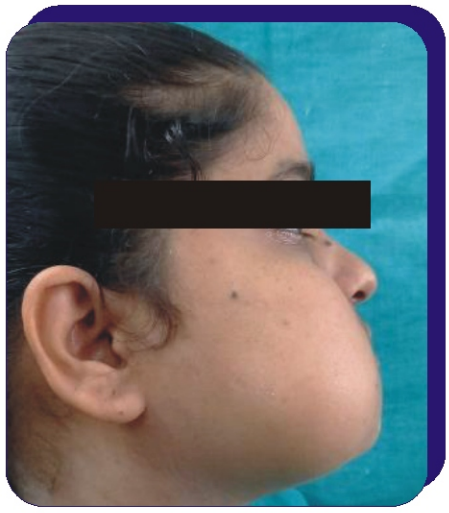


Figure 2 – Extraoral- lateral view

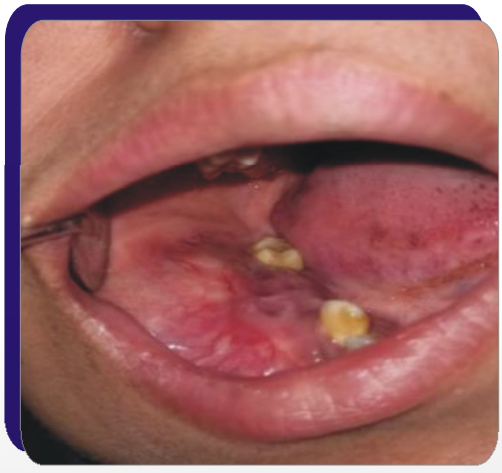


Figure 3-Intraoral view

On palpation swelling was soft to firm in consistency, non-tender, non-compressible and non-reducible in nature, while palpating egg shell crackling was truly appreciated. No lymph nodes were palpable.

Intraoral examination- Swelling present on right alveolar region of size- 5cm x 3cm approximately extending Antero-posteriorly- from distal aspect of canine to mesial aspect of 48 and Bucco-lingually-from depth of the buccal vestibule to lingual sulcus (figure 3).

On intraoral palpation the swelling was firm to hard in consistency, non-tender, non-palpable, non-reducible and non-compressible but while palpating, purulent discharge was noticed from the swelling.
Based on the history and clinical examination the provisional diagnosis was made as Ameloblastoma with respect to Right mandible.

The differential diagnosis was made as-

1- Odontogenic Keratocyst
2- Odontogenic Myxoma
3- Central giant cell granuloma
4- CEOT

Investigations-

1. **OPG-** OPG reveals Multilocular radiolucency (with interwining thin radio-opaque septae) extending anteroposteriorly from 42 to 48 and superoinferiorly from alveolar crest to lower border of mandible. Small locules can be seen on the mesial aspect suggestive of Honey comb appearance and large locules can be seen on the distal aspect suggestive of Soap bubble appearance (figure 4).

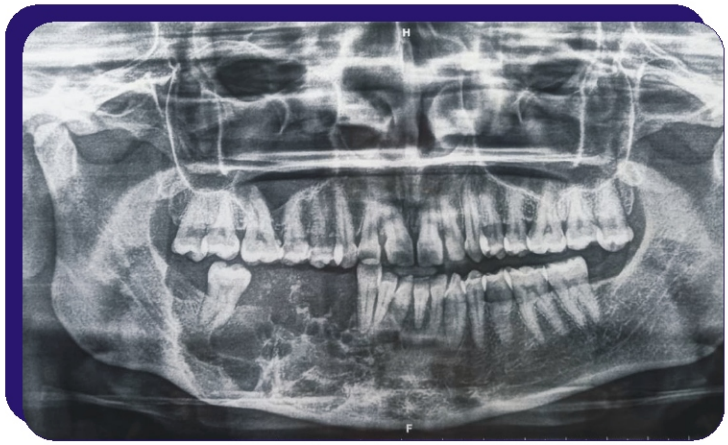


Figure 4- OPG

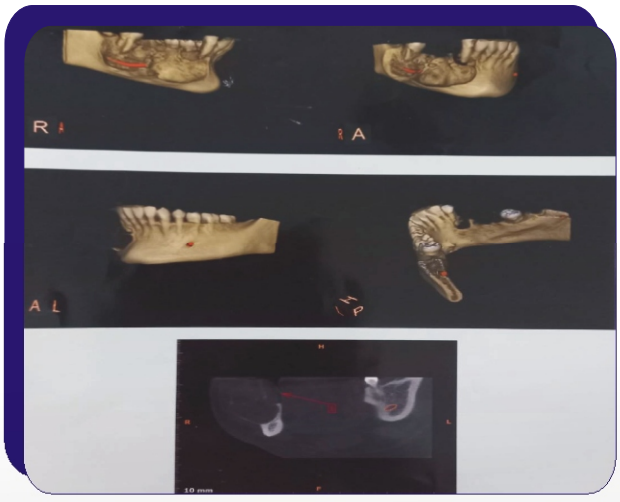


Figure 5- CBCT

2. **CBCT-** Cone beam computed tomography further confirms OPG findings and revealed lesion causing slight ballooning expansion of the mandible with significant thinning of inferior cortices but intermittently intact with multiple small compartments (figure 5).

3. FNAC – Aspiration yielded an infected material i.e. pus mixed with blood (figure 6).

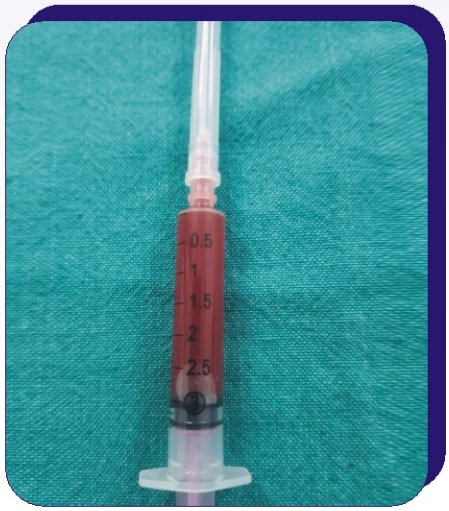
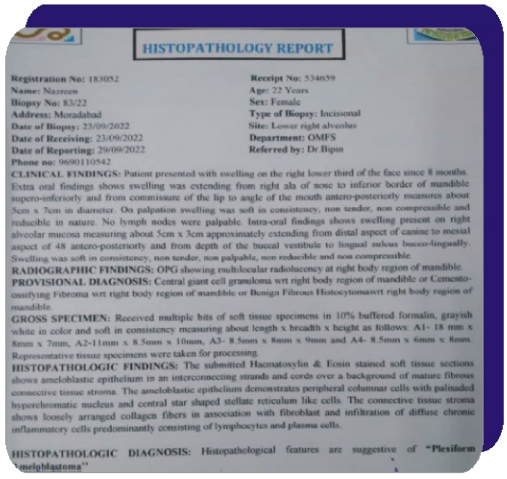


Figure 6- FNAC

4. Incisional Biopsy- It reveals Ameloblastic epithelium in an interconnecting strands and cords over a background of mature fibrous connective tissue stroma. Ameloblastic epithelium demonstrates peripheral columnar cells with palisaded hyperchromatic nucleus and central star shaped stellate reticulum like cells. The connective tissue stroma shows loosely arranged collagen fibers in association with fibroblast and infiltration of diffused chronic inflammatory cells predominantly consisting of lymphocytes and plasma cells (Figure 7).

Histopathological diagnosis was **Plexiform Amelo blastoma.**



HISTOPATHOLOGY REPORT

Registration No: 183052 **Receipt No:** 534659
Name: Nazreen **Age:** 22 Years
Biopsy No: B3/22 **Sex:** Female
Address: Moradabad **Type of Biopsy:** Incisional
Date of Biopsy: 23/09/2022 **Site:** Lower right alveolus
Date of Receiving: 23/09/2022 **Department:** OMFS
Date of Reporting: 29/09/2022 **Referred by:** Dr Bipin
Phone no: 9690110542

CLINICAL FINDINGS: Patient presented with swelling on the right lower third of the face since 8 months. Extra oral findings shows swelling was extending from right ala of nose to inferior border of mandible supero-inferiorly and from commissure of the lip to angle of the mouth antero-posteriorly measures about 5cm x 7cm in diameter. On palpation swelling was soft in consistency, non tender, non compressible and reducible in nature. No lymph nodes were palpable. Intra-oral findings shows swelling present on right alveolar mucosa measuring about 5cm x 3cm approximately extending from distal aspect of canine to mesial aspect of 48 antero-posteriorly and from depth of the buccal vestibule to lingual sulcus bucco-lingually. Swelling was soft in consistency, non-tender, non palpable, non reducible and non compressible.

RADIOGRAPHIC FINDINGS: OPG showing multilocular radiolucency at right body region of mandible.

PROVISIONAL DIAGNOSIS: Central giant cell granuloma wrt right body region of mandible or Cemento-ossifying Fibroma wrt right body region of mandible or Benign Fibrous Histocytomawrt right body region of mandible.

GROSS SPECIMEN: Received multiple bits of soft tissue specimens in 10% buffered formalin, grayish white in color and soft in consistency measuring about length x breadth x height as follows. A1- 18 mm x 8mm x 7mm, A2-11mm x 8.5mm x 10mm, A3- 8.5mm x 8mm x 9mm and A4- 8.5mm x 6mm x 8mm. Representative tissue specimens were taken for processing.

HISTOPATHOLOGIC FINDINGS: The submitted Haematoxylin & Eosin stained soft tissue sections shows ameloblastic epithelium in an interconnecting strands and cords over a background of mature fibrous connective tissue stroma. The ameloblastic epithelium demonstrates peripheral columnar cells with palisaded hyperchromatic nucleus and central star shaped stellate reticulum like cells. The connective tissue stroma shows loosely arranged collagen fibers in association with fibroblast and infiltration of diffuse chronic inflammatory cells predominantly consisting of lymphocytes and plasma cells.

HISTOPATHOLOGIC DIAGNOSIS: Histopathological features are suggestive of **"Plexiform ameloblastoma"**

Figure 7- Incisional Biopsy report

Management- This particular case was treated with Enucleation.

Various modalities of treatment have been suggested in literature like-

- Curettage
- Enucleation
- Marsupialization
- Cryosurgery
- Electrocautery
- Radical en bloc resection
- Sclerotherapy