

Study: Maxillofacial CBCT

Patient: **Sample Pathology Report**

Referring Doctor:

Practice Address:

Study Date:

Date of Birth:

Sex:

History: 18-year-old Caucasian female with mixed radiopaque/radiolucent lesion in the right mandible, asymptomatic

Indications: Radiographic documentation

Study Details

- Large field of view CBCT extending from the level of the frontal sinuses to the superior aspect of C5.
- The study is limited by scatter and quantum noise.

General Report

- A well-defined, corticated, multilocular, mixed-density entity is seen in the posterior right mandible extending from the distal of 31 to the mid ramus and from the alveolar crest to near the inferior border of the mandible.
 - o The lesion involves the entire buccolingual width of the alveolar process and ramus. Mild buccolingual and superior expansion are seen with thinning of the cortices.
 - o Internal septa are noted, some of which are straight and at right angles.
 - o The internal radiopaque component has the appearance of manufactured granular bone.
 - o The lesion abuts the IAC and discontinuities are noted in the cortex. The IAC does not appear to be displaced.
 - o No evidence of displacement or root resorption in 31.
 - o The lesion measures approximately 26 mm anteroposterior, 14 mm buccolingual and 15 mm superoinferior in its greatest dimension.
- Missing teeth: 32.
- 1, 16 and 17 are developing. The crown of 17 is facing lingual.
- 6, 11: Significant root dilaceration to the mesial in the apical one-third.
- 19, 30: Distal root bifurcation; anatomical variant.
- Well-defined, homogenous radiopaque entities are seen between 19-20, 20-21 and 28-29, suggestive of a deciduous retained root fragments vs. idiopathic osteosclerosis.
- A bonded orthodontic retainer spanning 22-27 is present.

Sinuses

- Mild mucosal thickening in the inferior aspect of the frontal sinuses.
- Mucosal thickening in the anterior ethmoid air cells, left more than right.

- Mild mucosal thickening in the maxillary sinuses. A mucous retention pseudocyst is seen on the medial wall of the right maxillary sinus.
- The right ostiomeatal complex is obstructed by soft tissue density. The left ostiomeatal complex appears to be patent.

Airway

- *Upper Airway Analysis:* Minimum cross-sectional area of the upper airway space is ~ 173.4 mm² at the level of C2 which is within the range of normal.

IMPRESSION:

- The radiographic appearance of the multilobular lesion in the posterior right mandible is suggestive of a benign neoplasm such as a central giant cell granuloma vs. a vascular malformation (central hemangioma) vs. an odontogenic myxoma. Contrast-enhanced MRI is recommended for further evaluation. Aspirational biopsy and histopathological correlation are advised.
- 1, 16 and 17: Embedded and negative for radiographic signs of osseous pathology.
- Retained deciduous root fragments vs. idiopathic osteosclerosis between 19-20, 20-21 and 28-29. Comparison with previous imaging studies recommended.
- Sinuses: Obstructed right ostiomeatal complex. Referral to ENT is advised if signs and symptoms of paranasal sinus disease are present.

Brian P. Jardina

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Oral and Maxillofacial Radiologist
Verified Date:

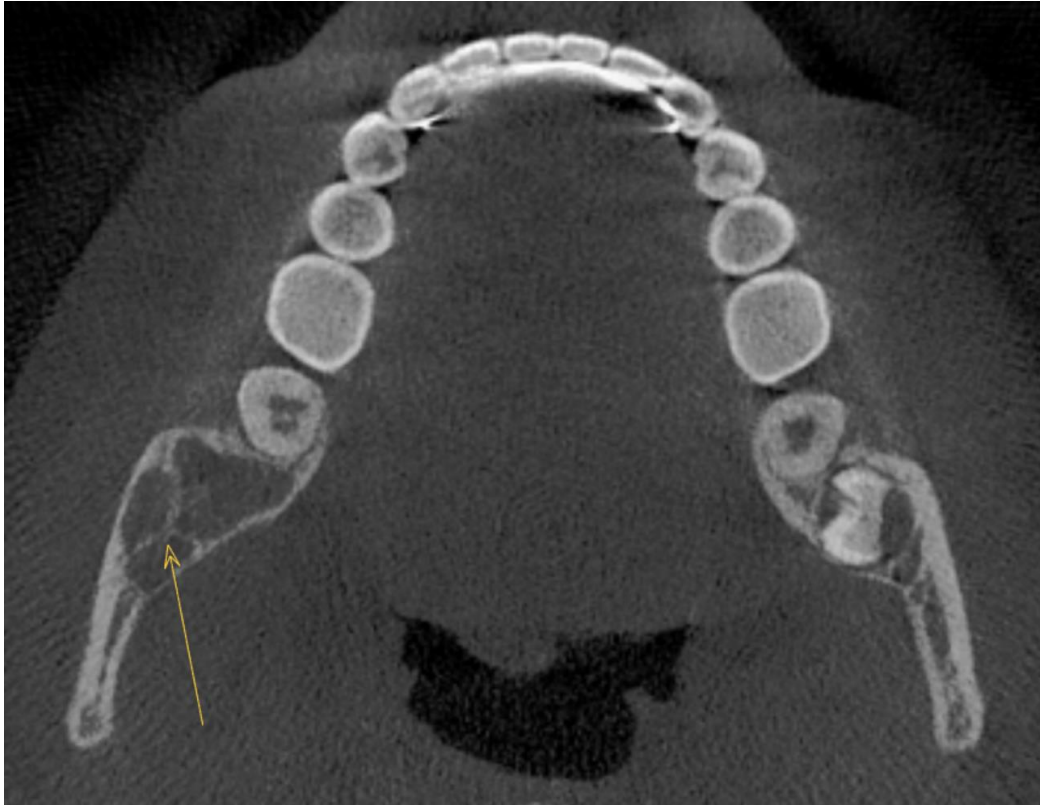
Disclaimer: Please note that measurements should not be made from any attached images. The provided images are only representative slices.



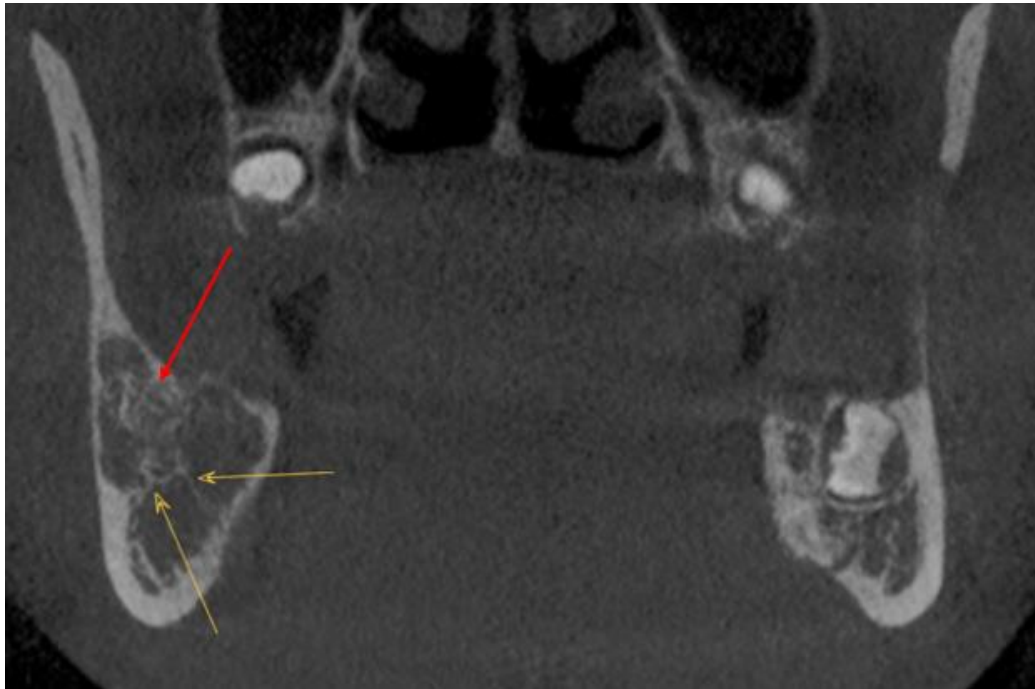
Reformatted panoramic.



Parasagittal section (5.0 mm slice thickness) of the multilocular lesion in the posterior right mandible.



Axial section of the multilocular lesion in the posterior right mandible with arrow indicating internal septa.



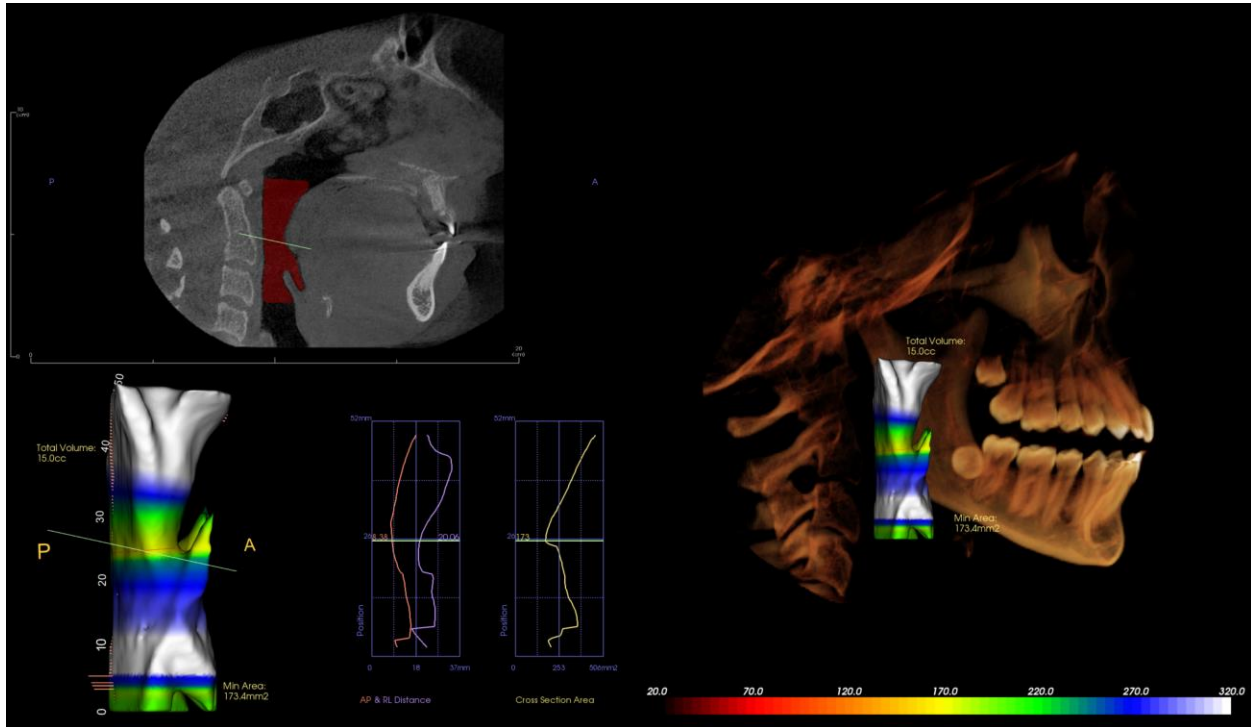
Coronal section of the multilocular lesion in the posterior right mandible with yellow arrows indicating internal septa and red arrow internal radiopaque component.



Parasagittal section of with arrow indicating internal radiopaque component.



Volume Rendering – right lateral view.



Airway analysis.

Airway Length: 51.5607 (mm)

Max Area: 459.988 (mm²)

Min Area: 173.385 (mm²)

Average Area: 291.56 (mm²)

Max AP Length: 18.0979 (mm)

Min AP Length: 7.86725 (mm)

Average AP Length: 12.2162 (mm)

Max RL Length: 33.3499 (mm)

Min RL Length: 16.5969 (mm)

Average RL Length: 25.1554 (mm)

Max AP-RL Ratio: 5.05852

Min AP-RL Ratio: 0.270077

Average AP-RL Ratio: 0.888373