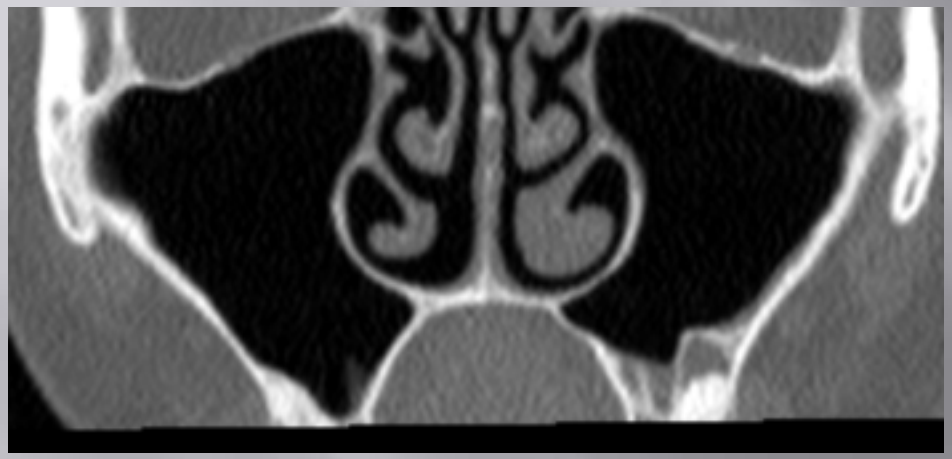
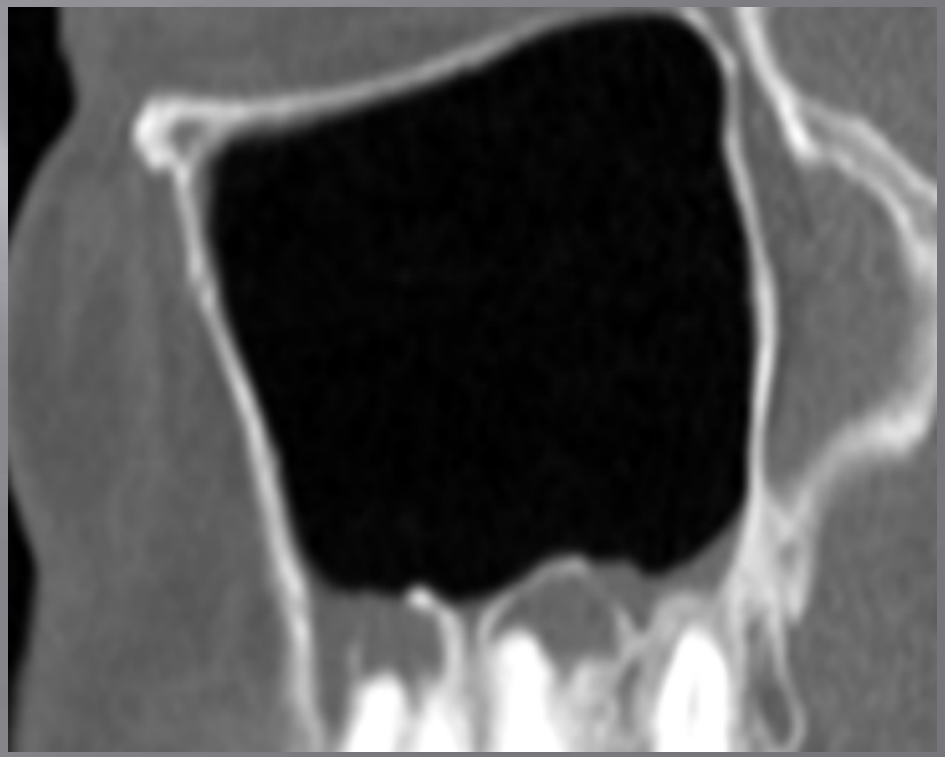
CT DIAGNOSIS, PATHOLOGY AND REPORTING

Davina Pawaroo MRCP FRCR

Consultant Radiologist

continuous persistent sinusitis and taste in mouth ? cause ?





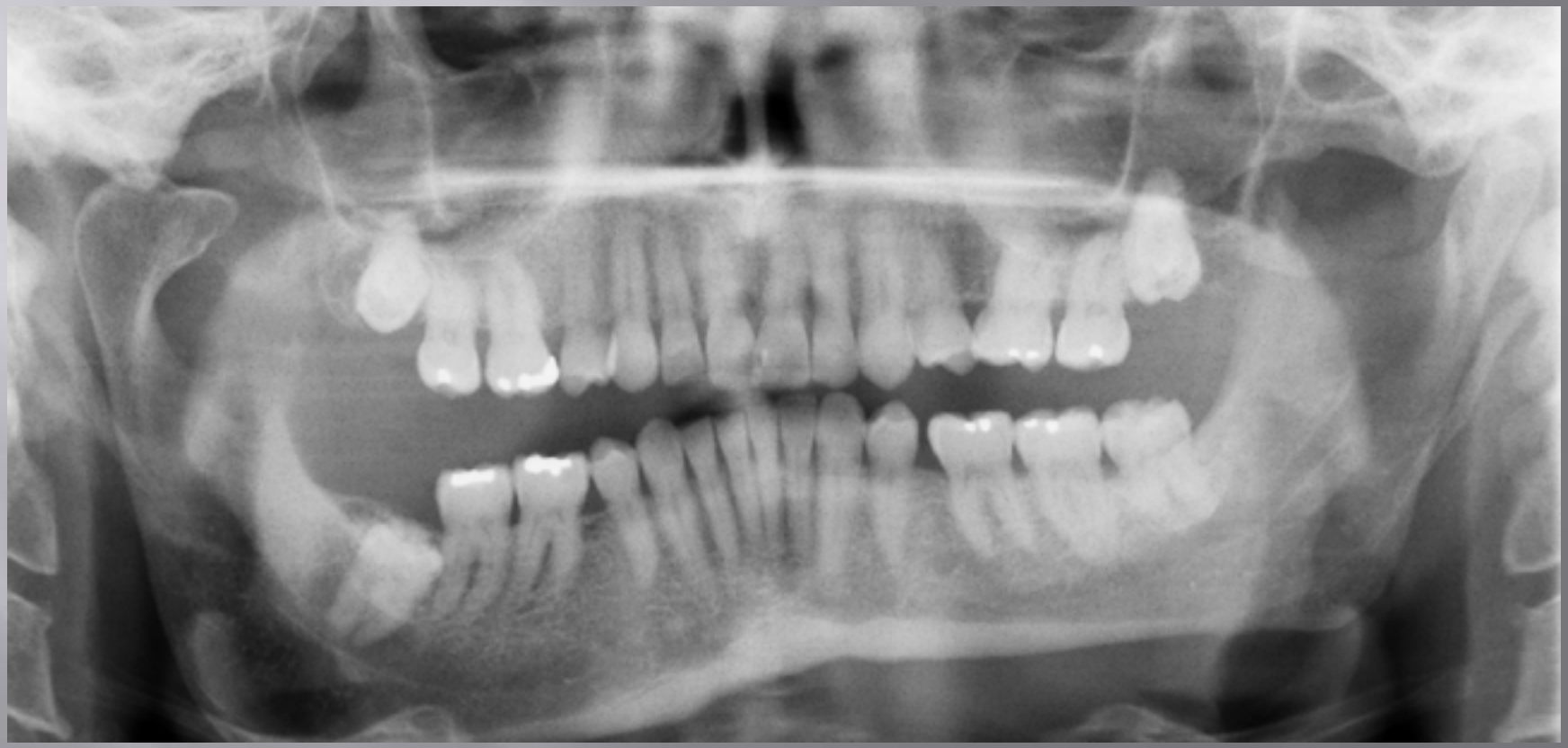
Objectives

- Pathology
- Terminology

Terminology for bone lesions

- Is the lesion
  - **Lytic/lucent** (cystic – less dense than bone)
  - Or **Sclerotic** (more dense than bone)
- Is it expansile
- Is it aggressive or non aggressive
  - Narrow zone of transition
  - Wide zone of transition (permeative/motheaten)
- Is there a periosteal reaction
- Is there a soft tissue component

Mal-occlusion



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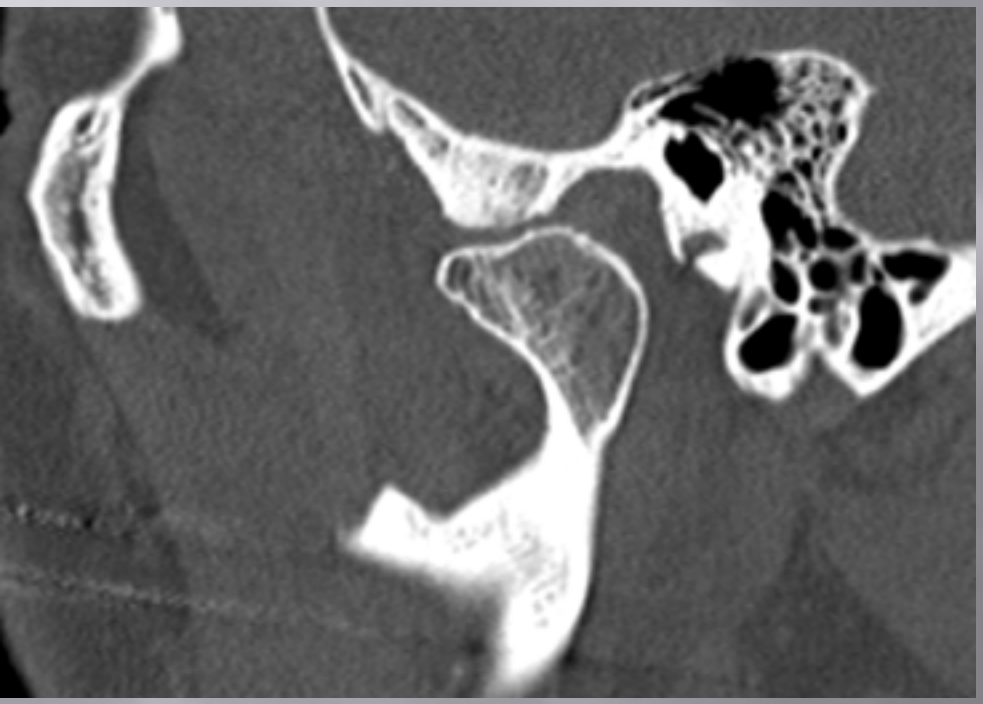
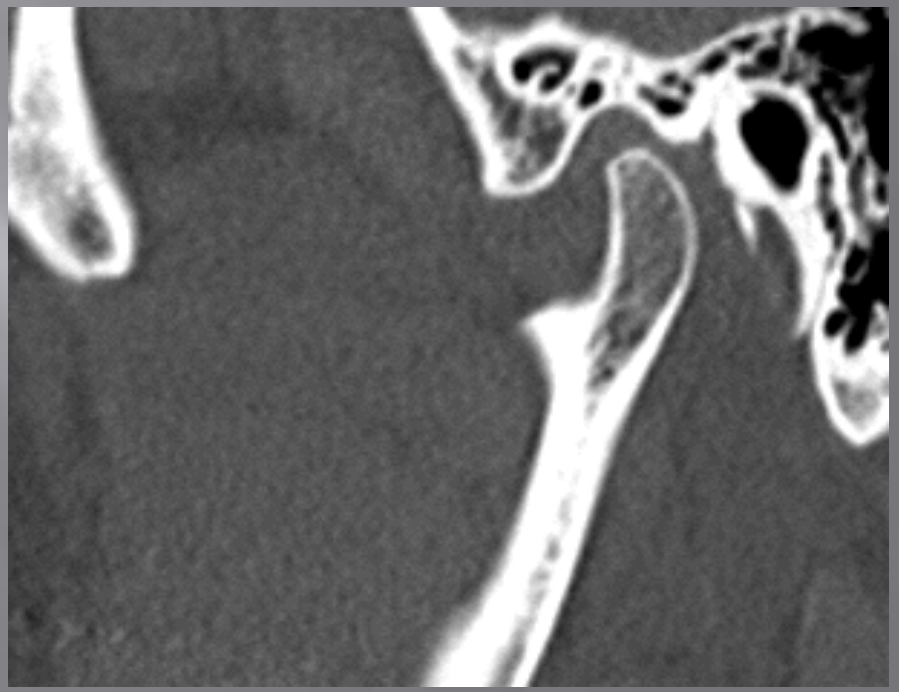
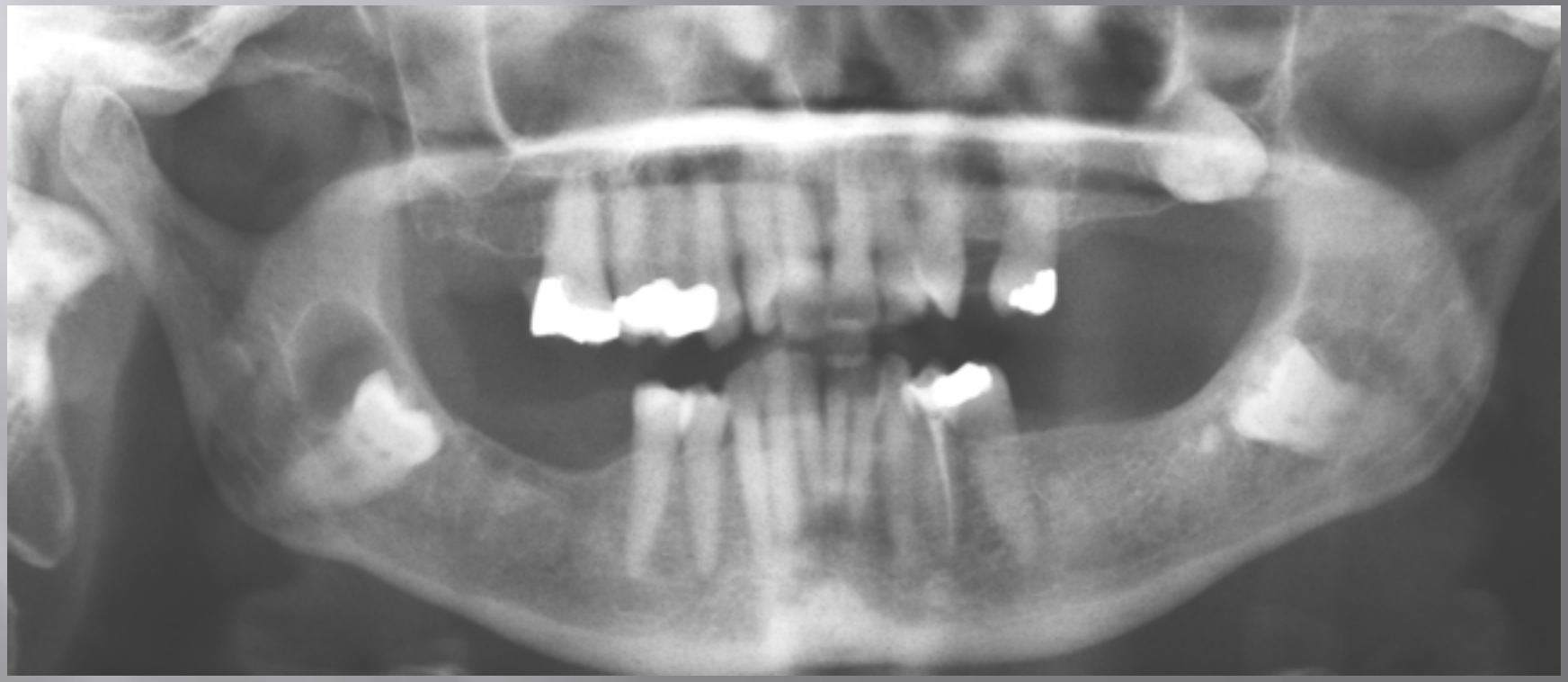




Condylar Hyperplasia

- Rare
- Increased volume of the mandibular condyle frequently associated with increased volume of the ramus and mandibular body
- Usually unilateral
- Second and third decades of life during brisk periods of osteogenesis ?hormonal influence upon the growth disturbance
- ?Trauma due to hypervascularity during healing producing inducing excessive osteogenesis
- Facial asymmetry with the chin rotating away from the affected side

Describe the lesion



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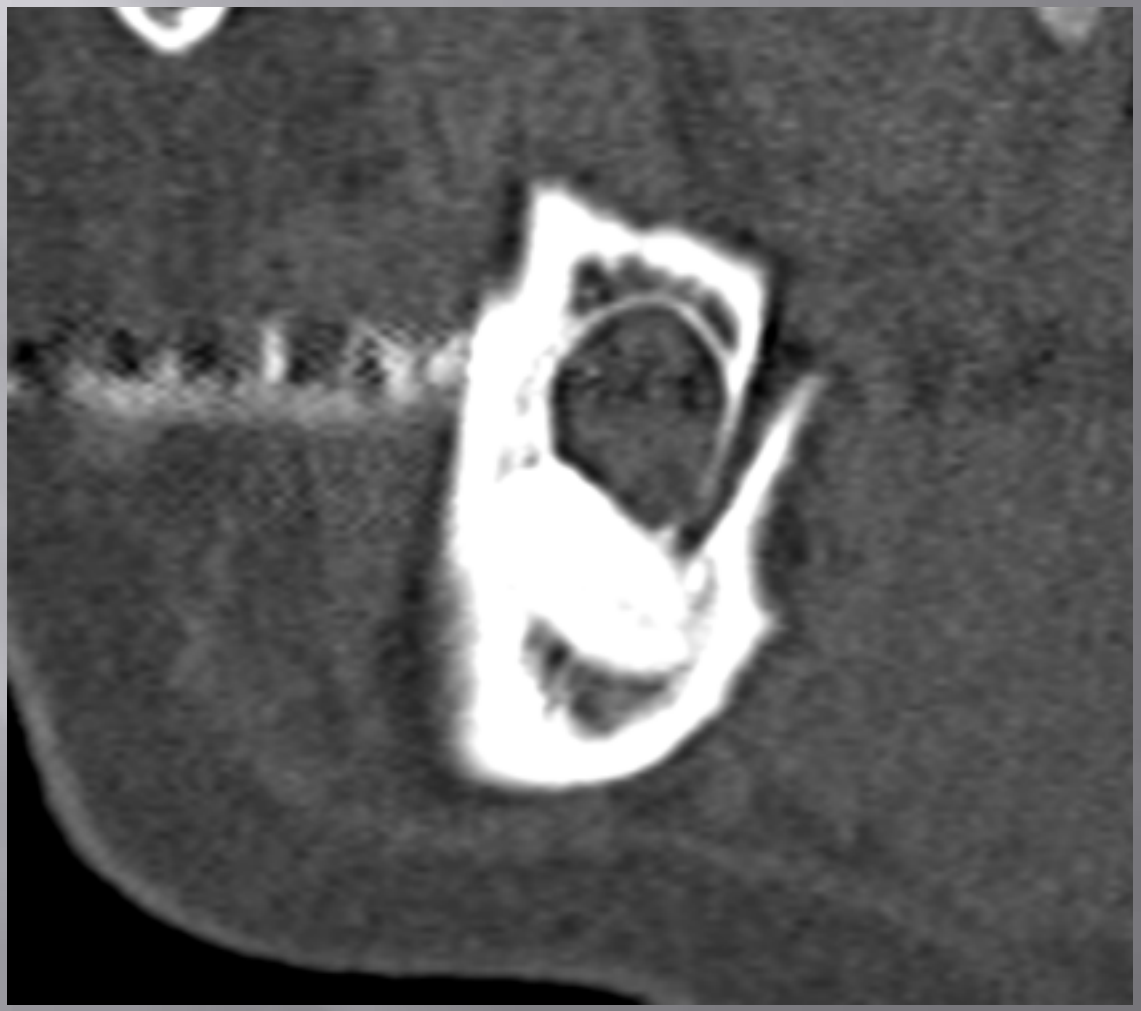
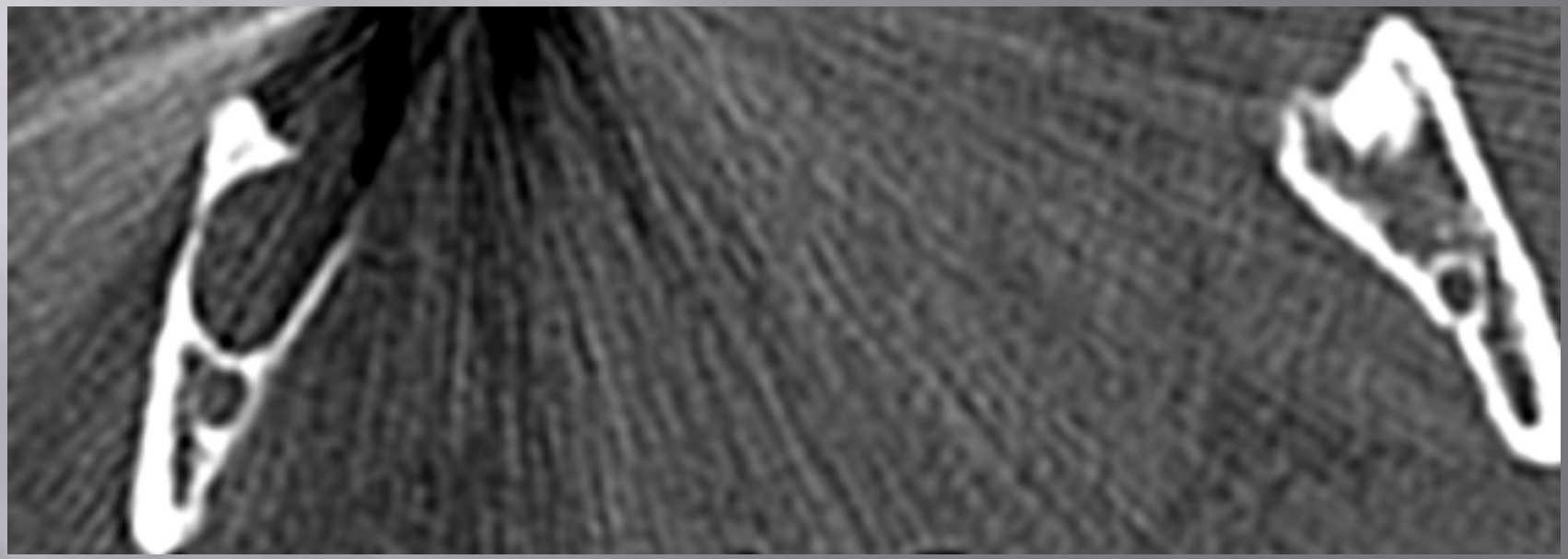
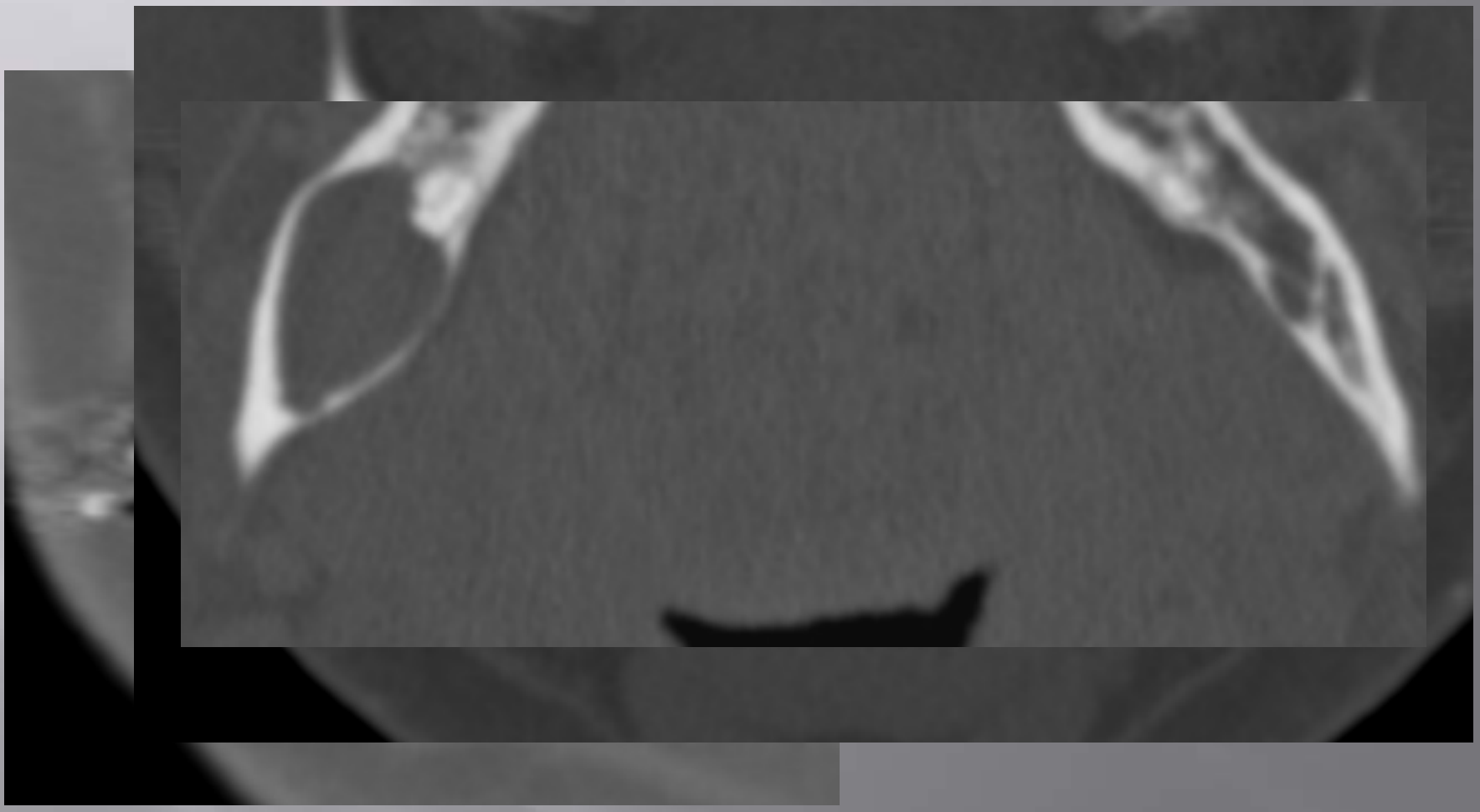


Axial

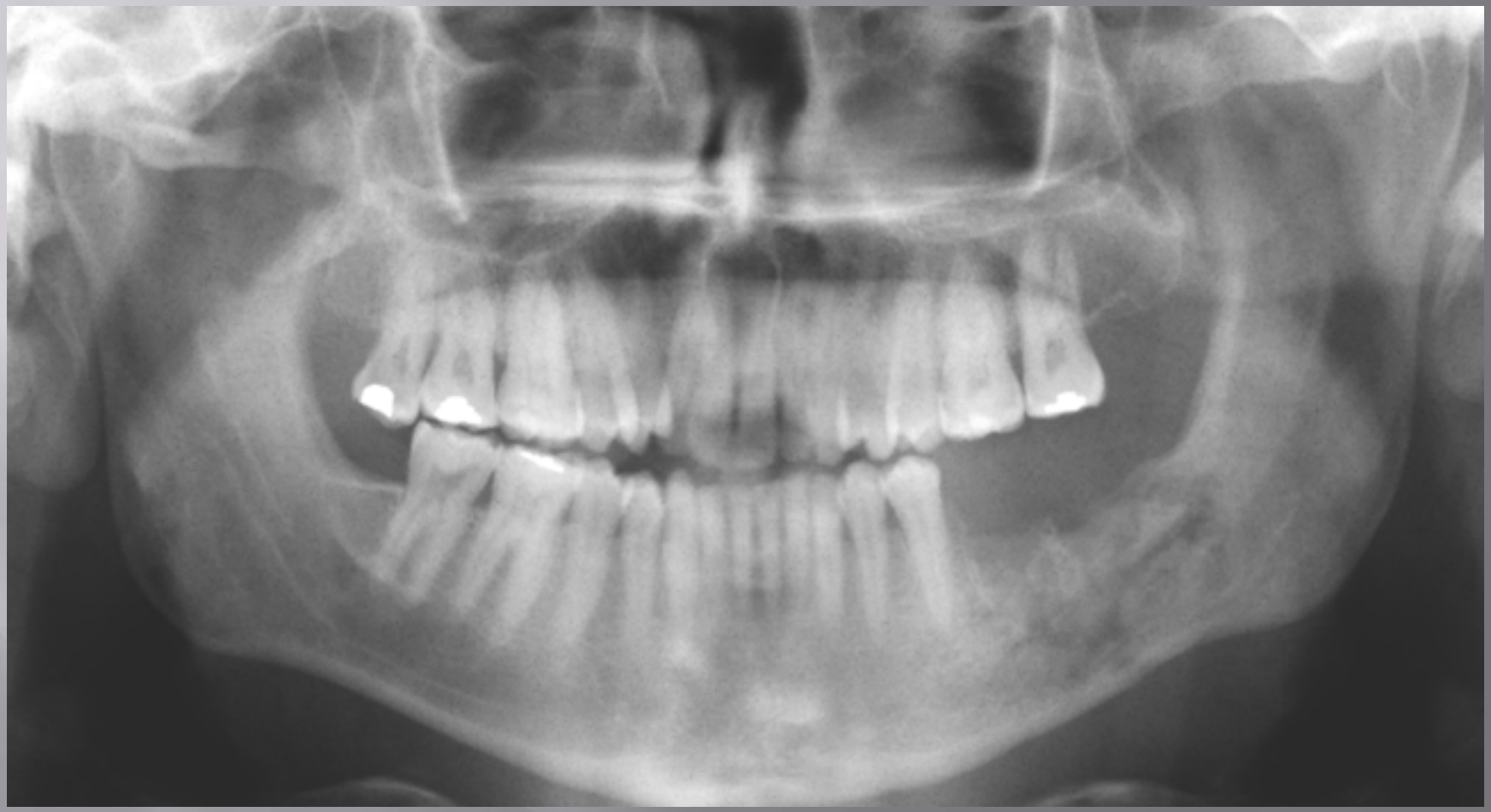


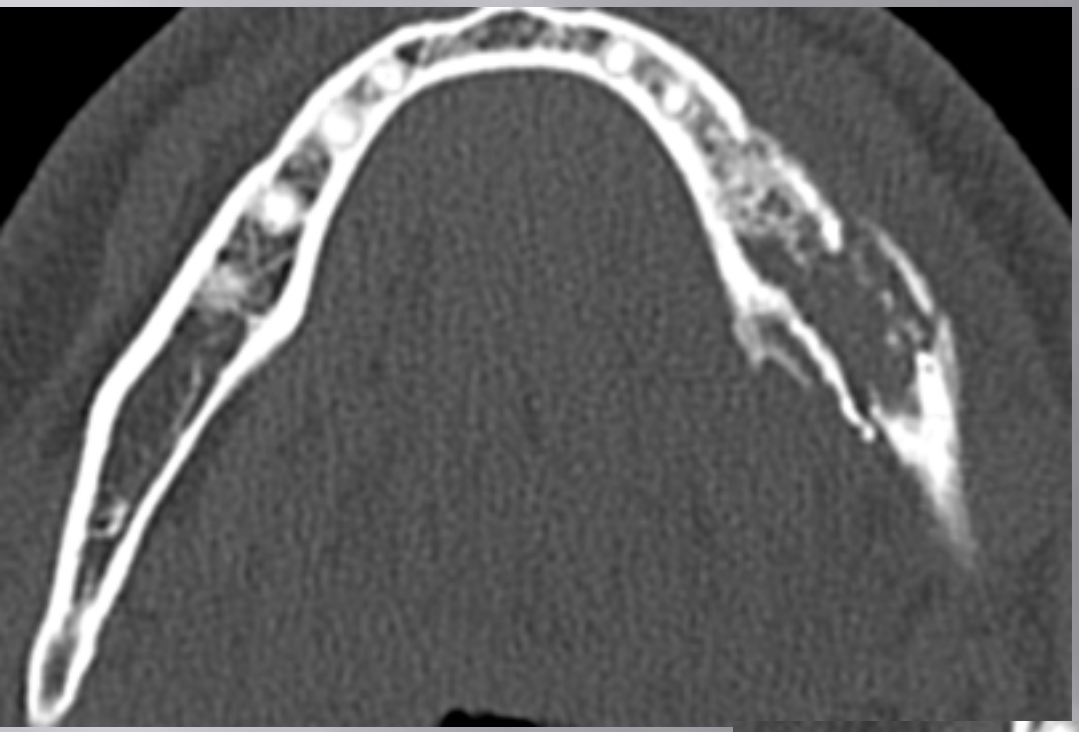
Dentigerous Cyst

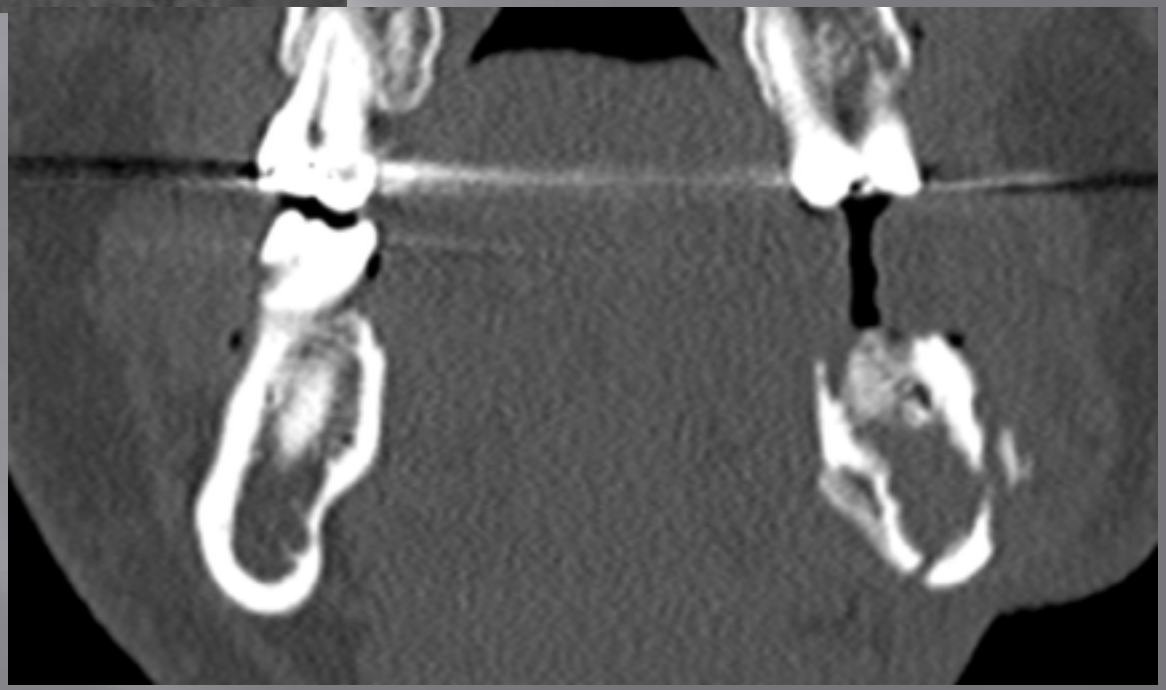
- 20 – 40yrs
- Unilocular, well defined, lucent lesion with a sclerotic border around an unerrupted tooth crown
- Follicular cyst if the distance between the crown and dental sac is 3mm

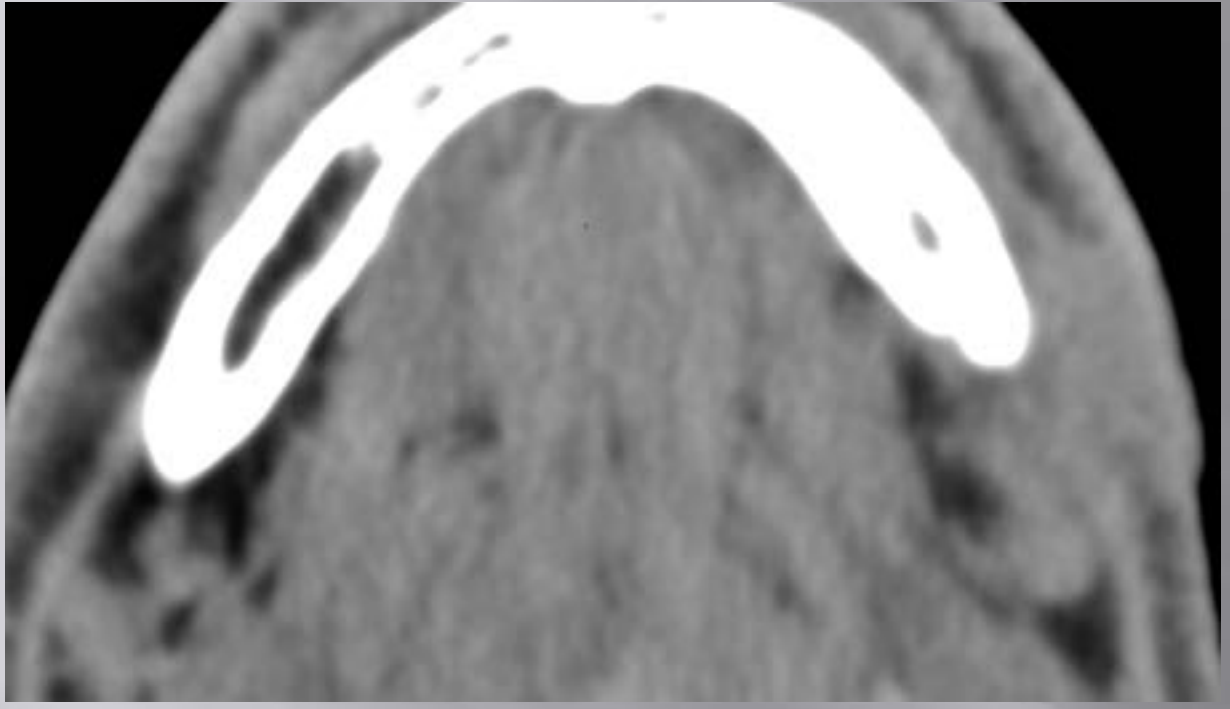


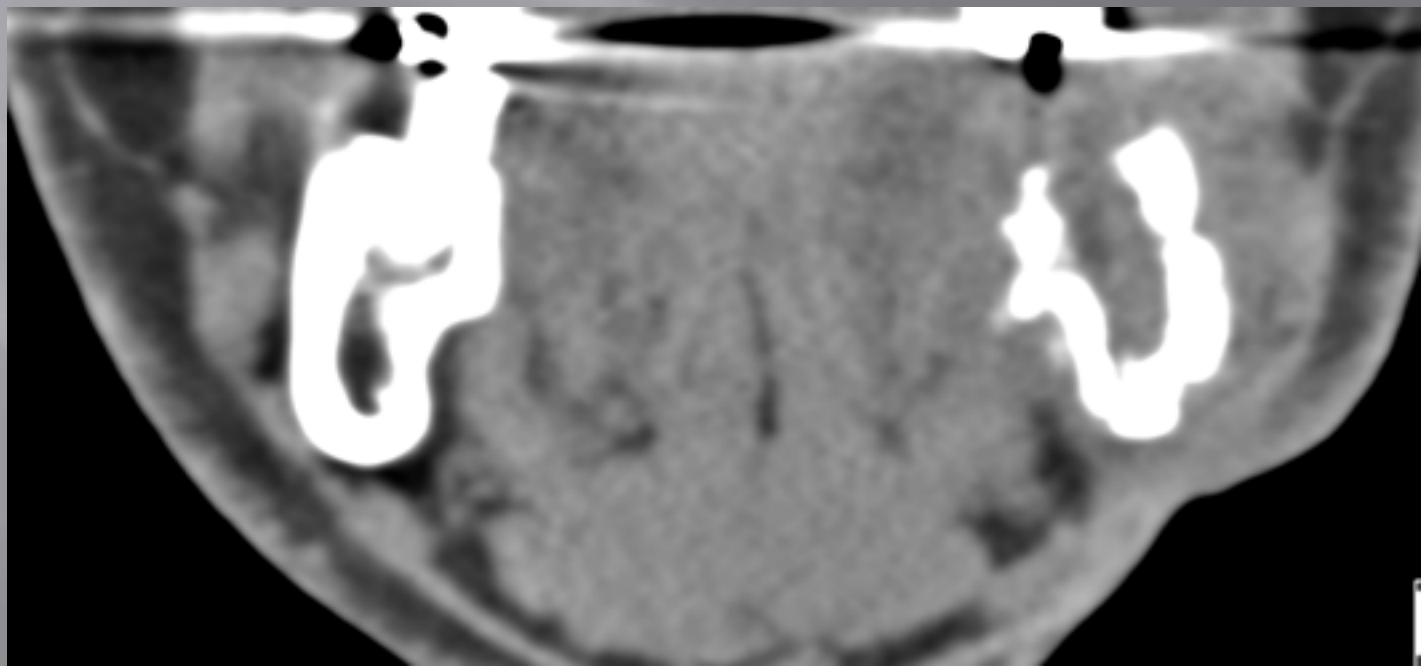
Describe the lesion



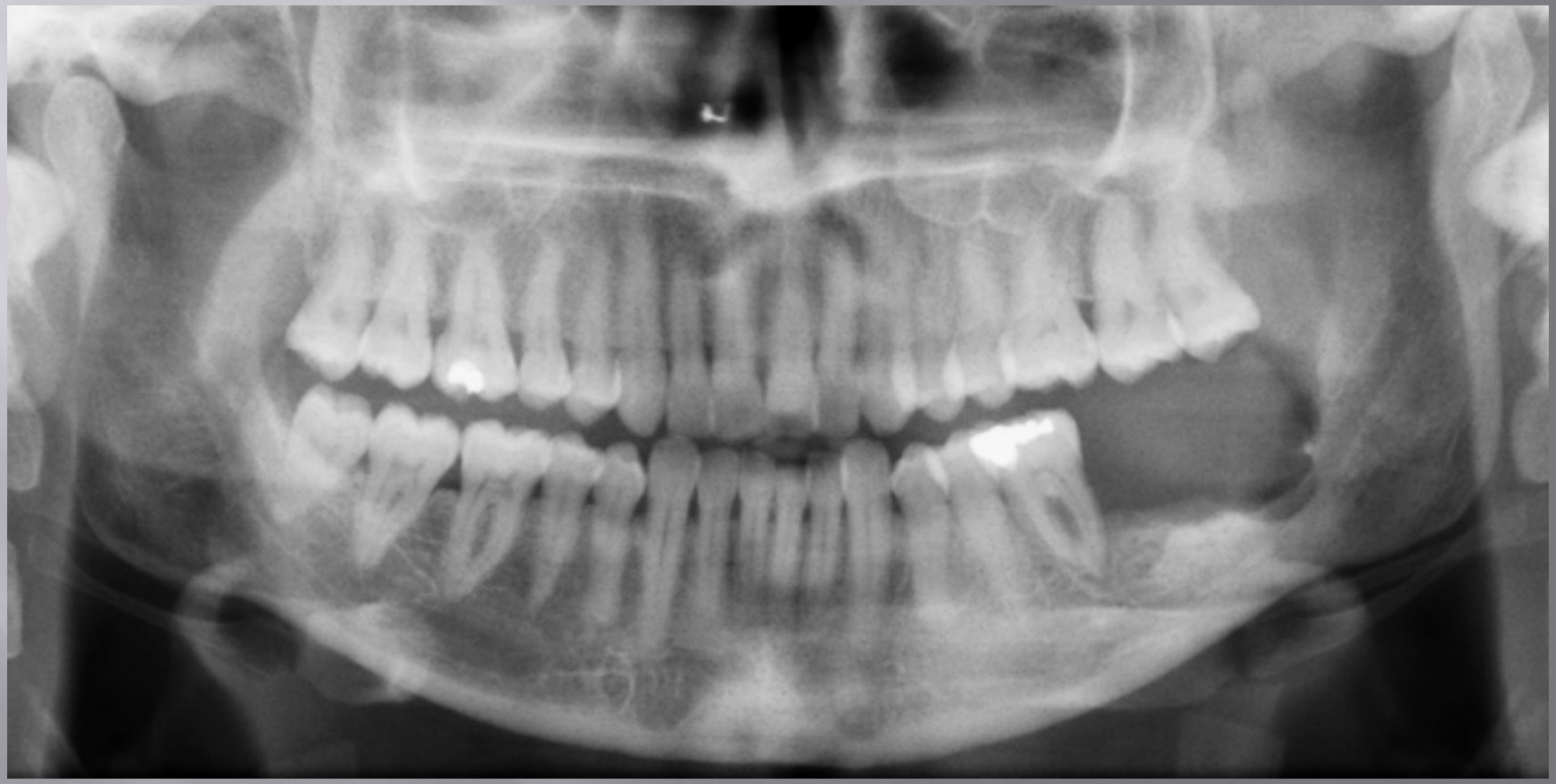




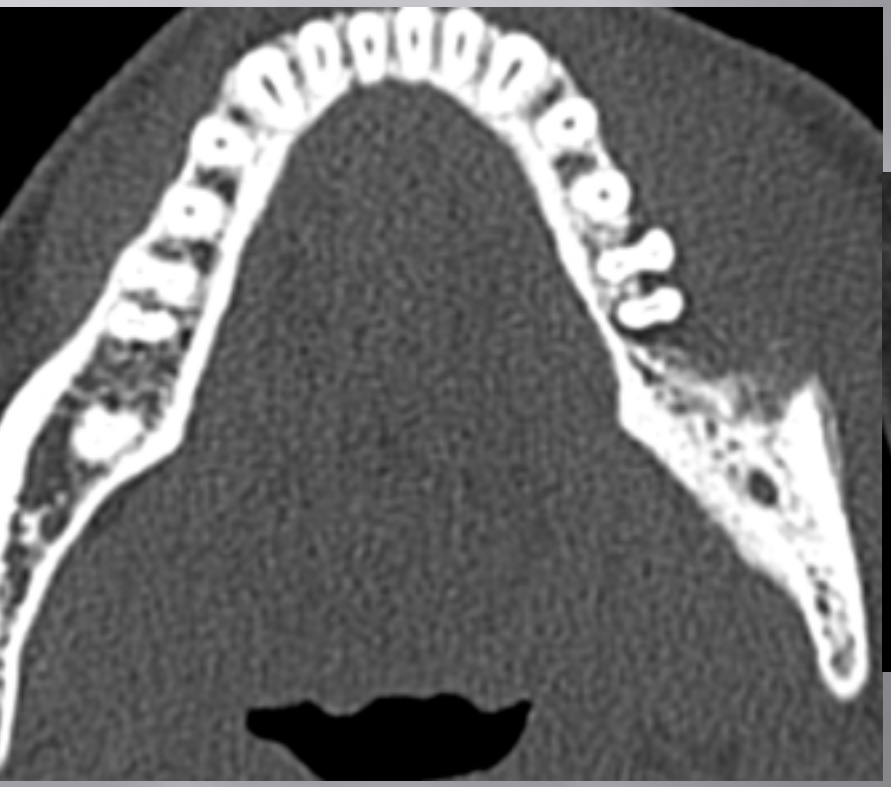


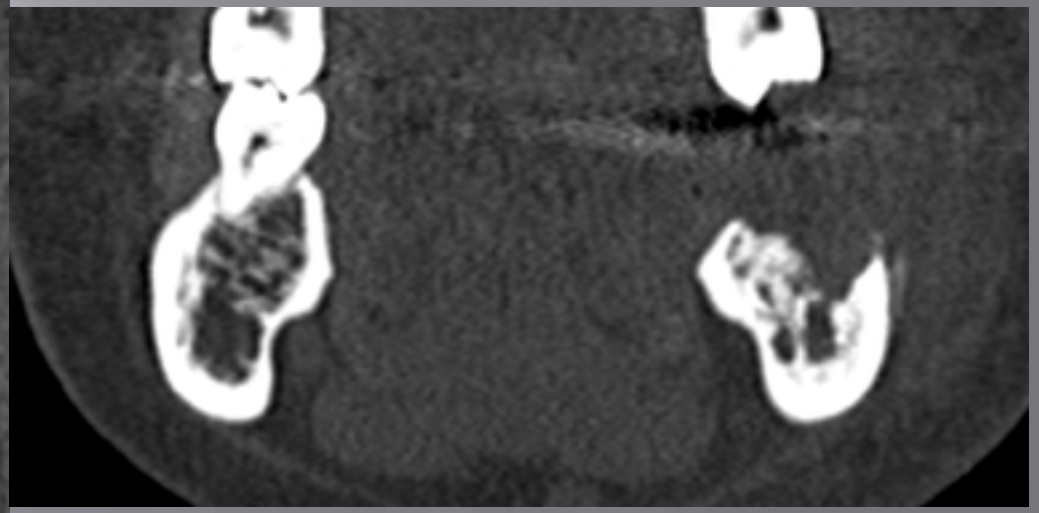


Describe the abnormality

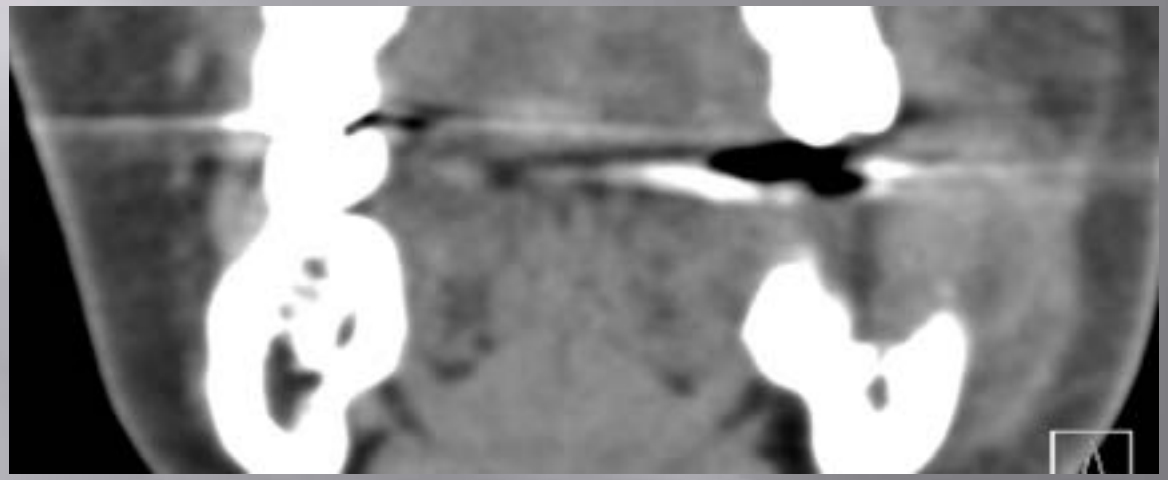


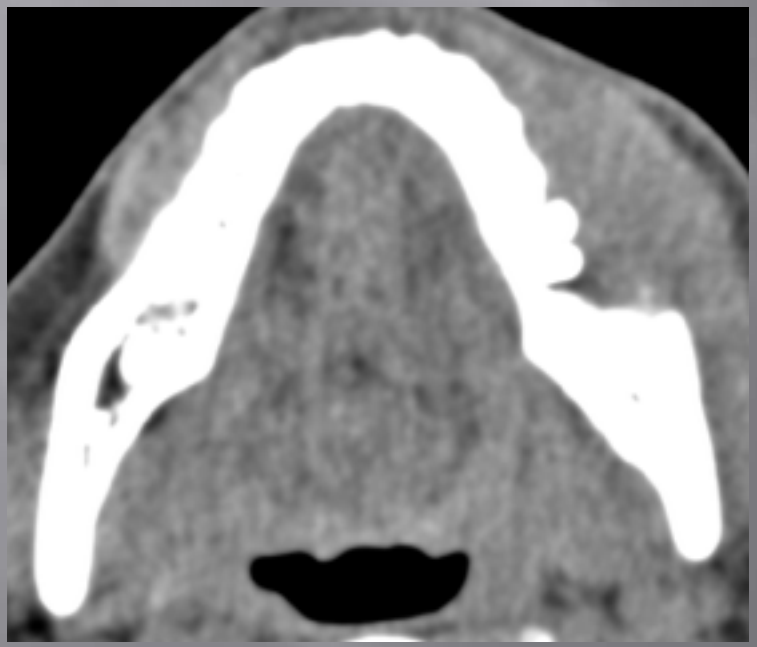
Aggressive or non aggressive



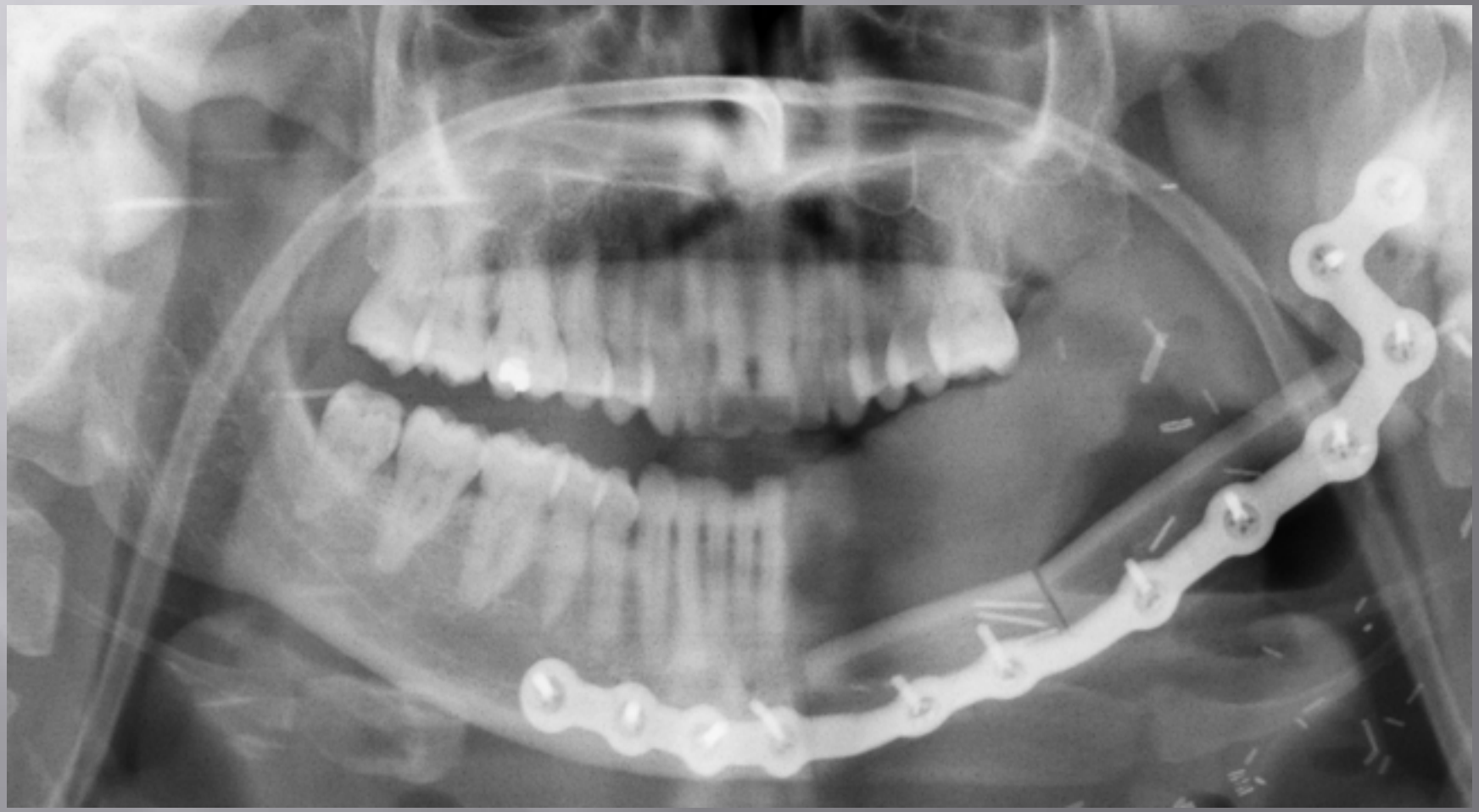


Soft tissue windows

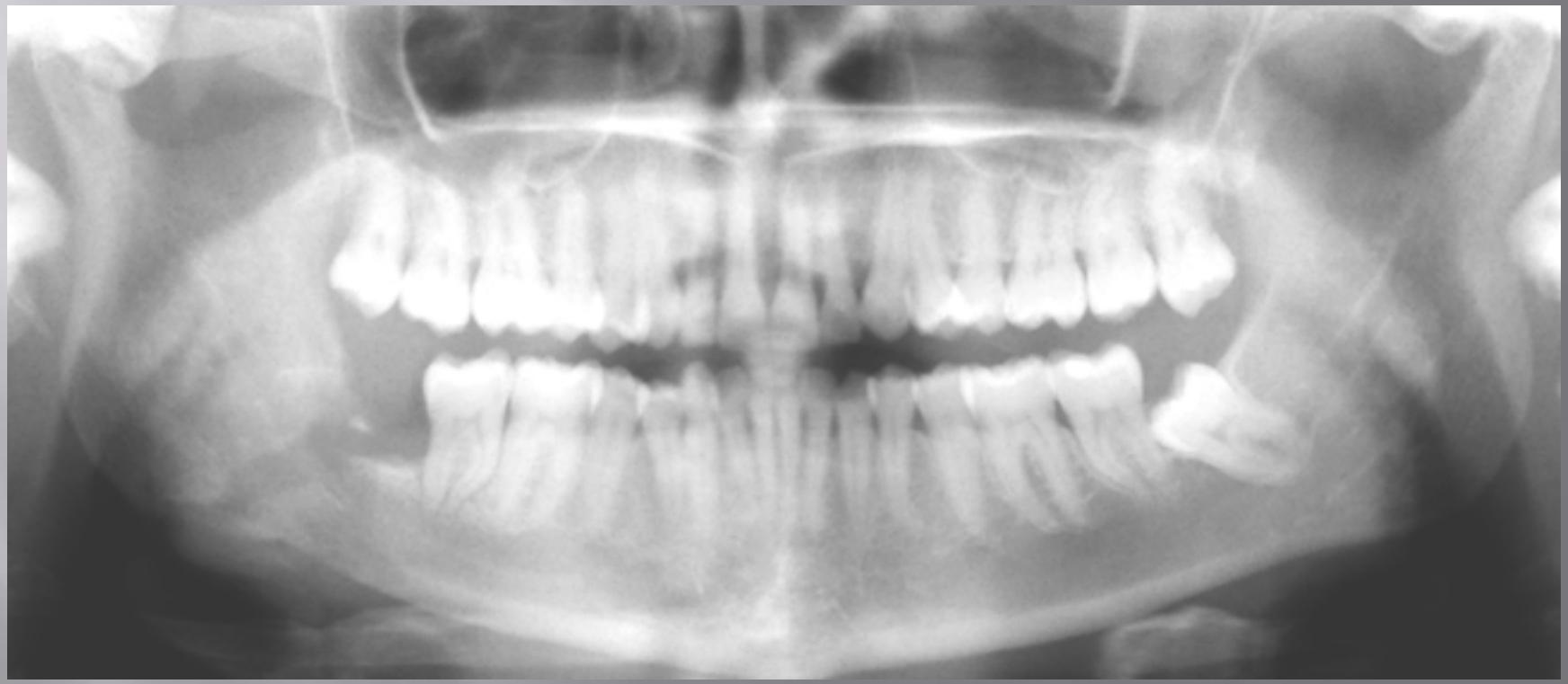




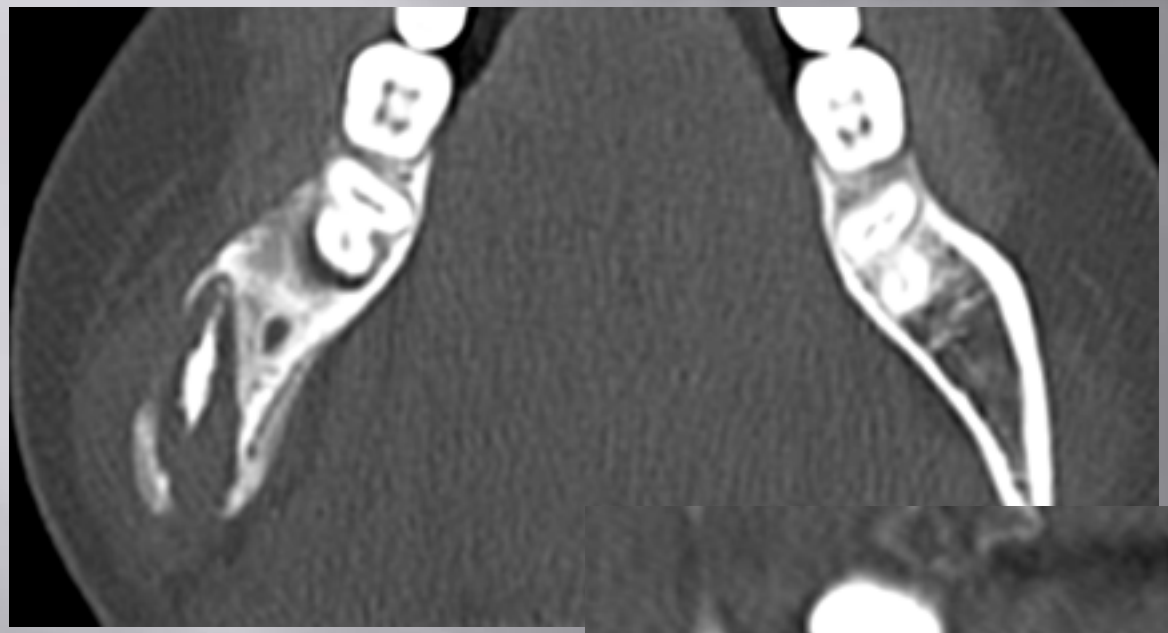
Post op

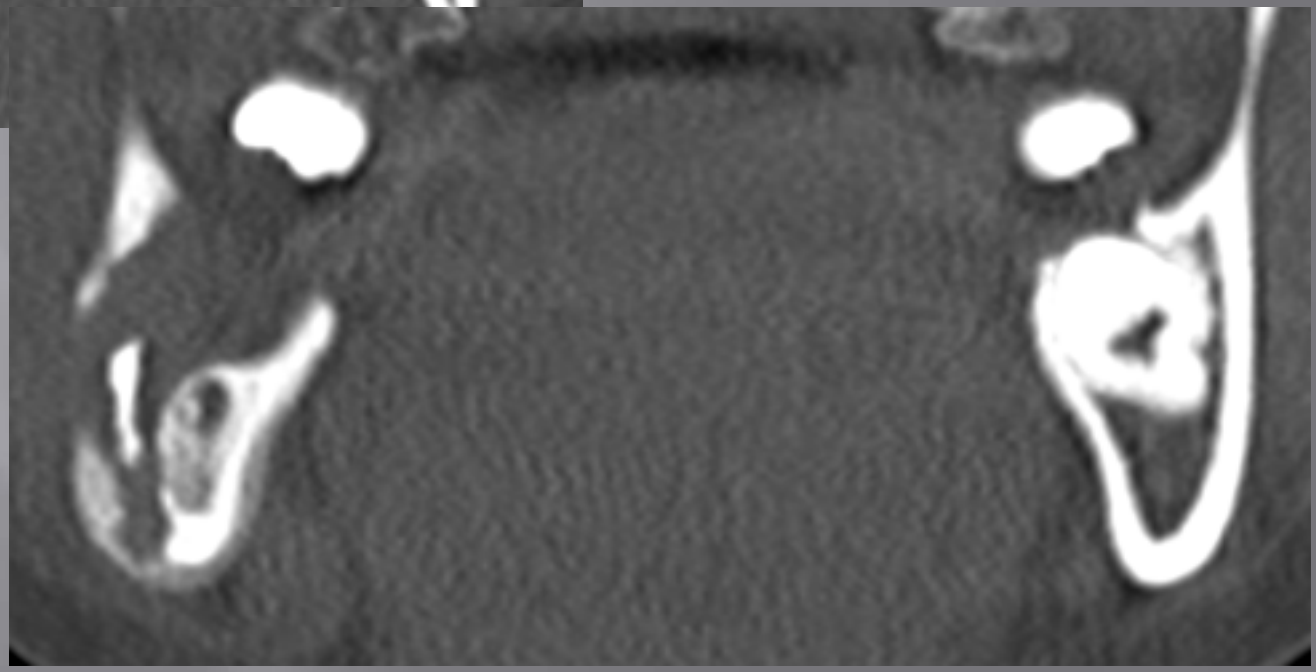


Describe the abnormality



?Osteomyelitis

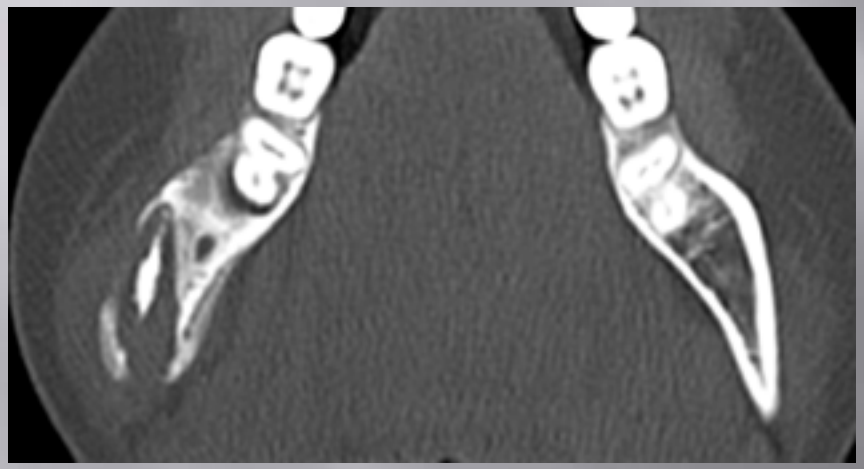




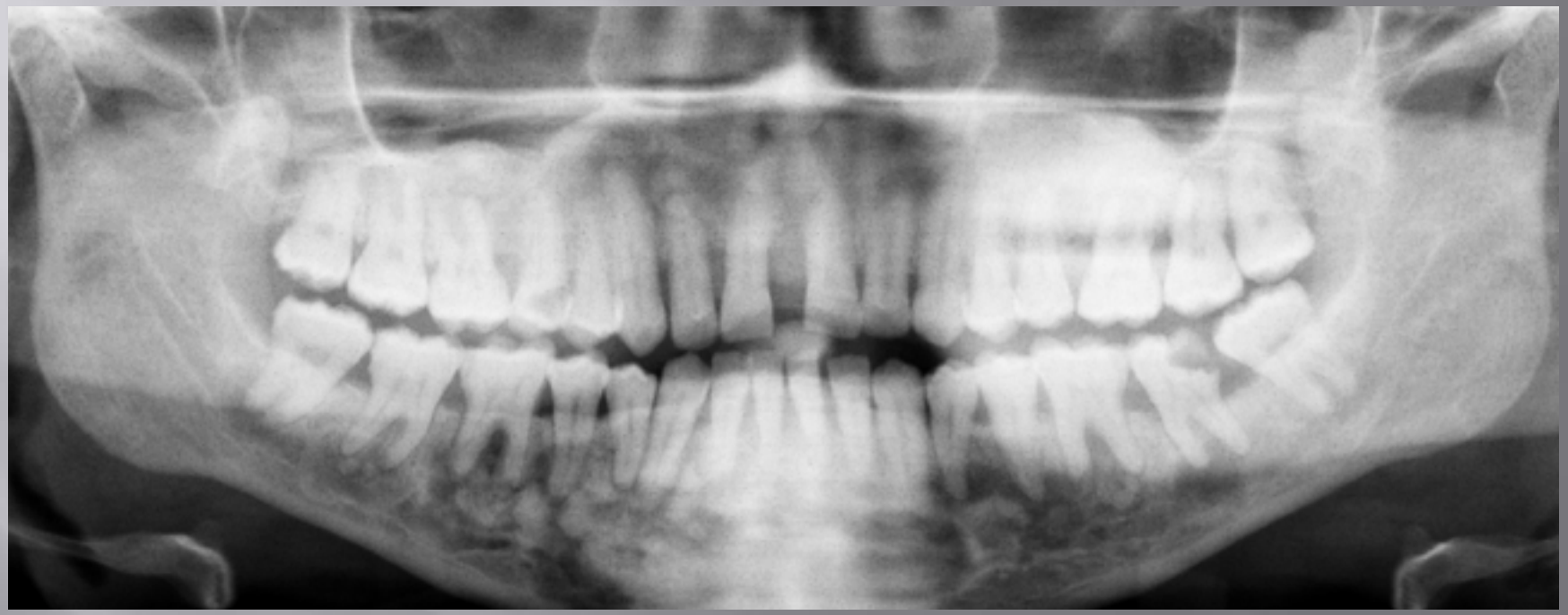
MRONJ

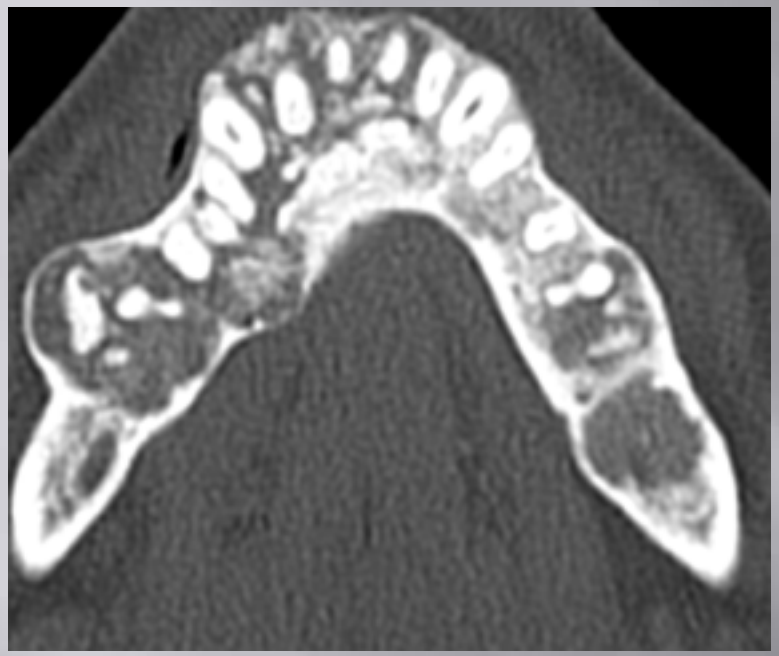
- Medication-related osteonecrosis of the jaw (MRONJ) describes the bony destruction of the jaw with exposed bone present for greater than eight weeks in the presence of current or previous antiresorptive and/or antiangiogenic medication use, and in the absence of radiation therapy to the head and neck or obvious metastatic disease

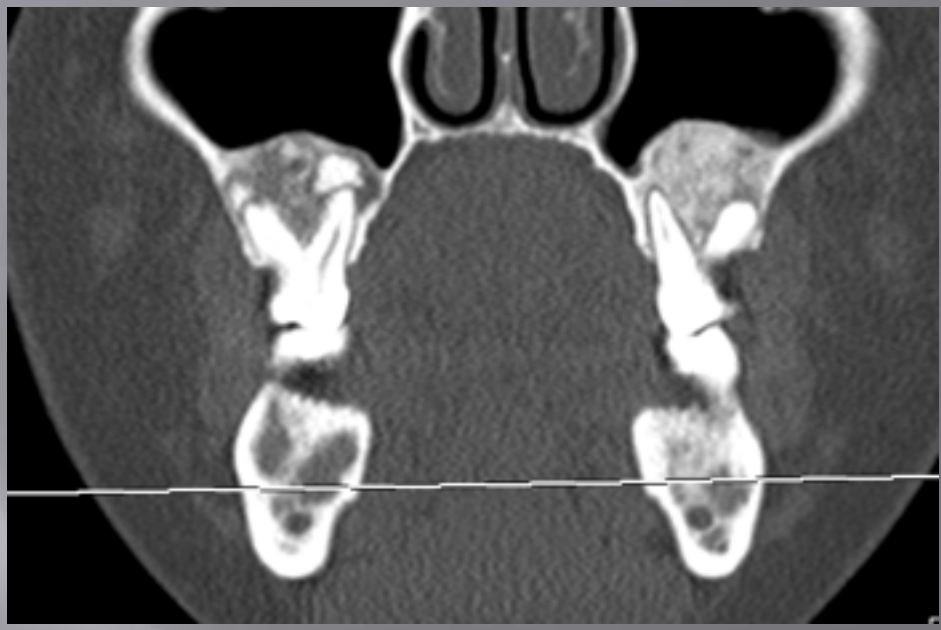
CT appearances

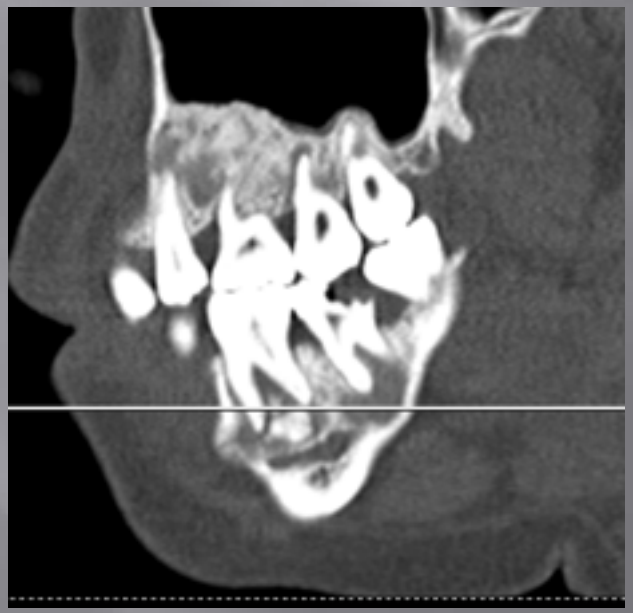


- poorly defined lucent, mixed or sclerotic lesion
- sequestrum
- periosteal proliferation
- destruction of adjacent structures





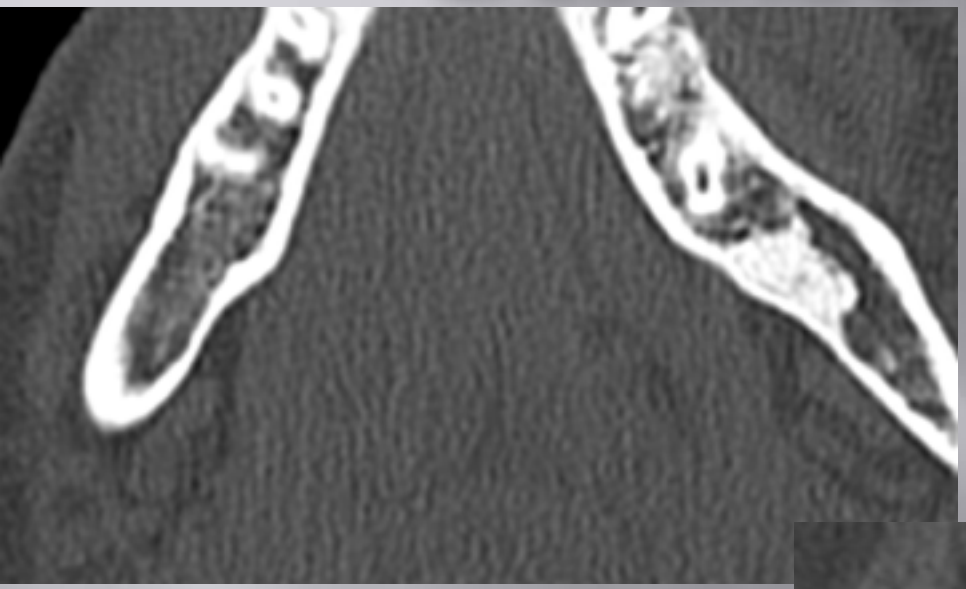


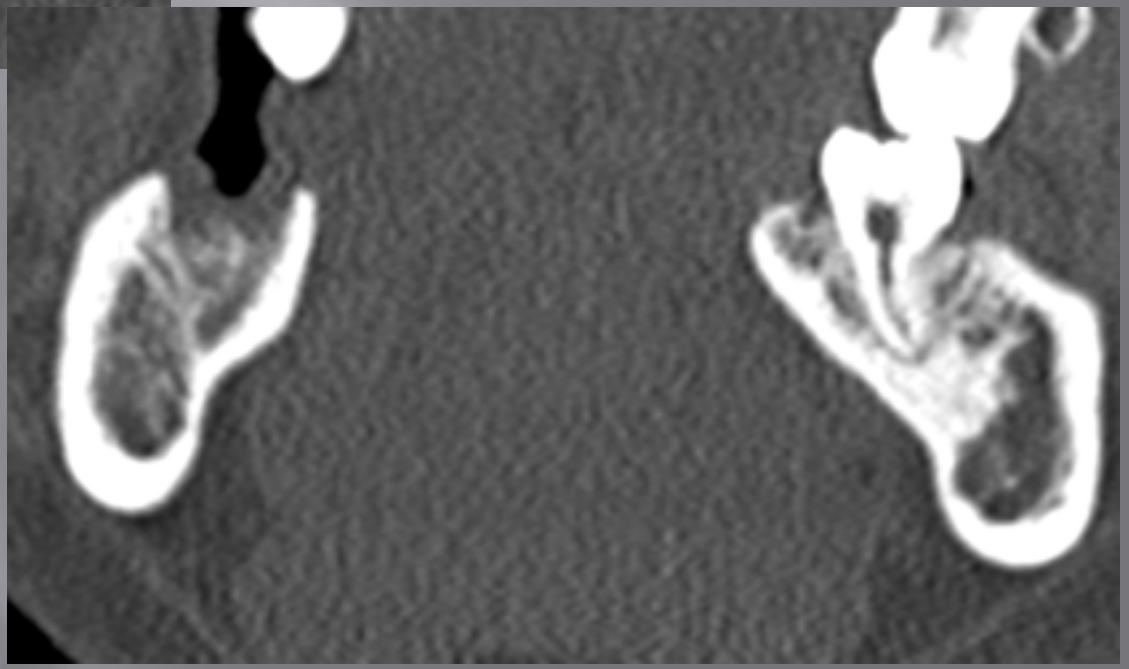


Cemento-Osseous Dysplasia

- Benign condition arising from fibroblasts of periodontal ligaments
- No treatment necessary
- Not to be confused with osteitis

Describe the lesion

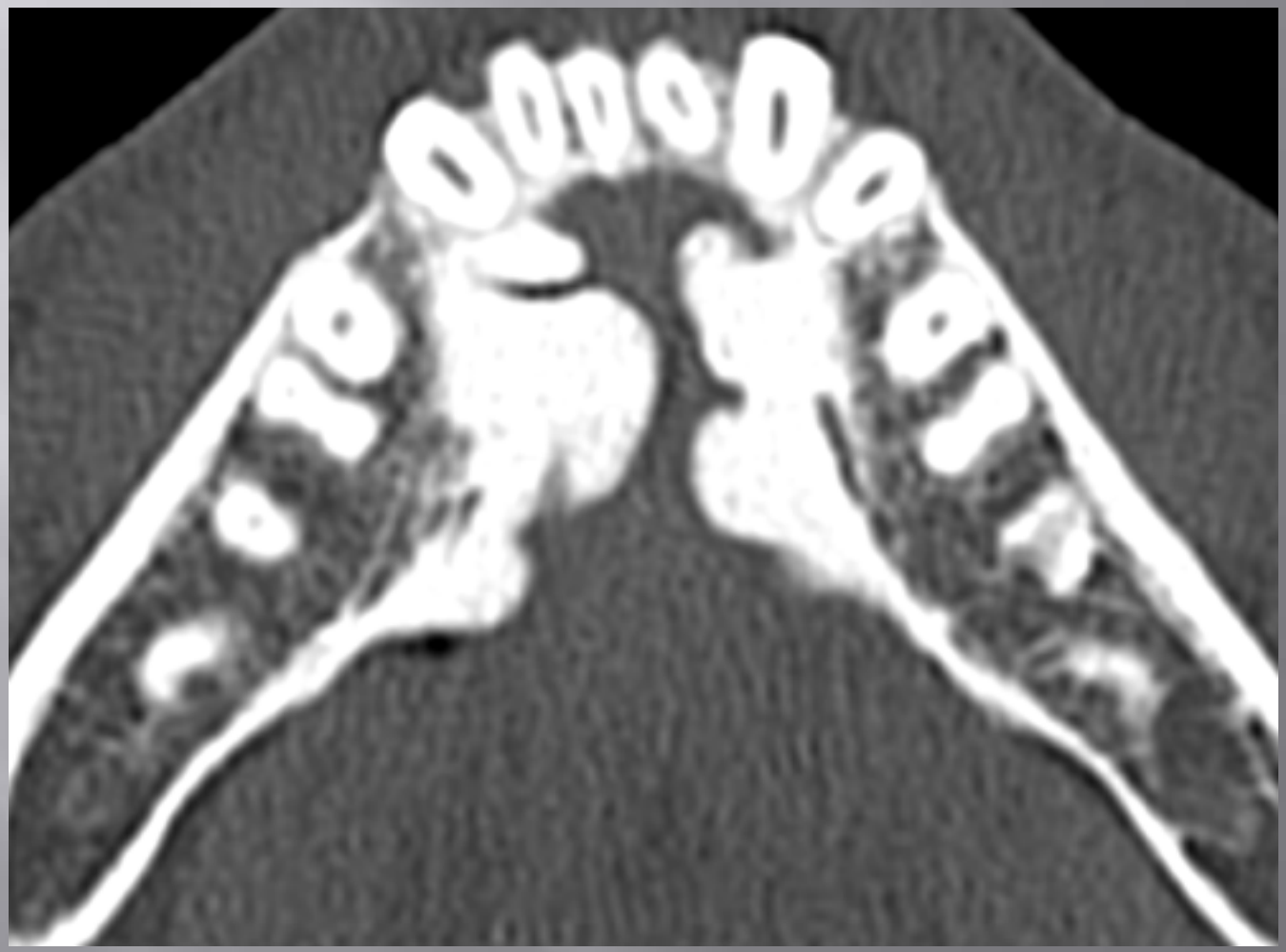




Cementoma

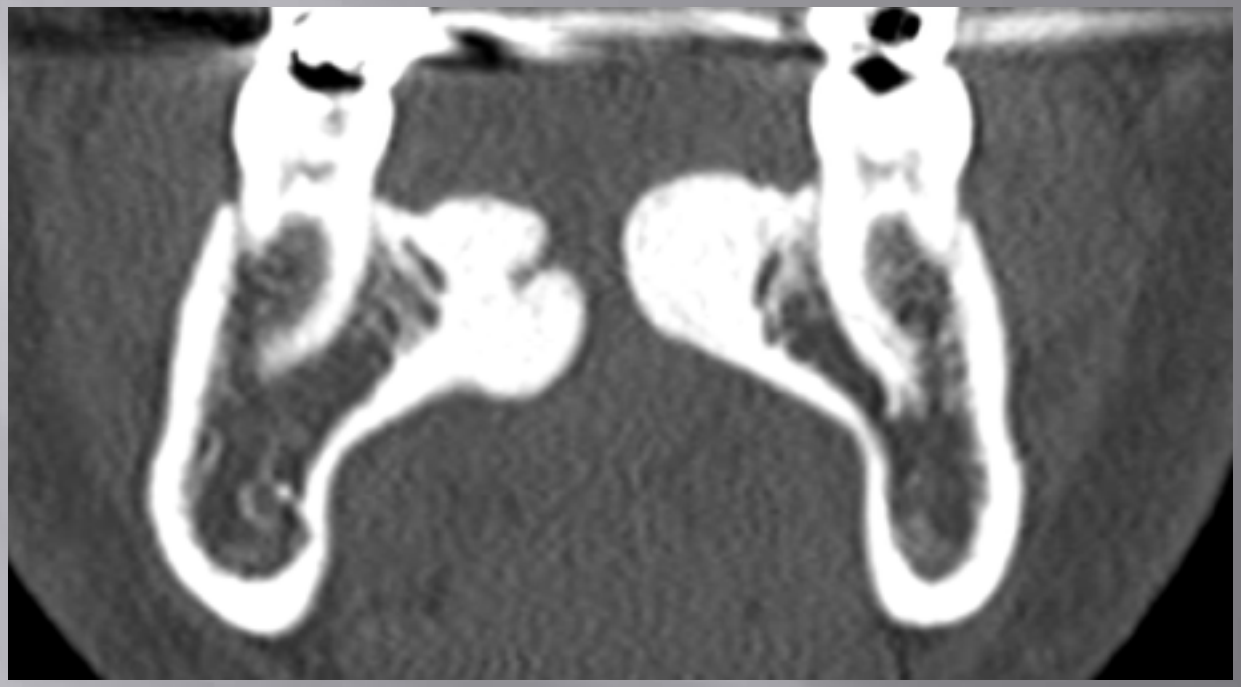
- odontogenic tumour of cementum
- usually occurs after root development is finished
- predominantly in African American women older than 40
- found most commonly in the mandible in the region of the lower molar teeth
- causes distortion of surrounding areas
- usually painless growth, at least initially

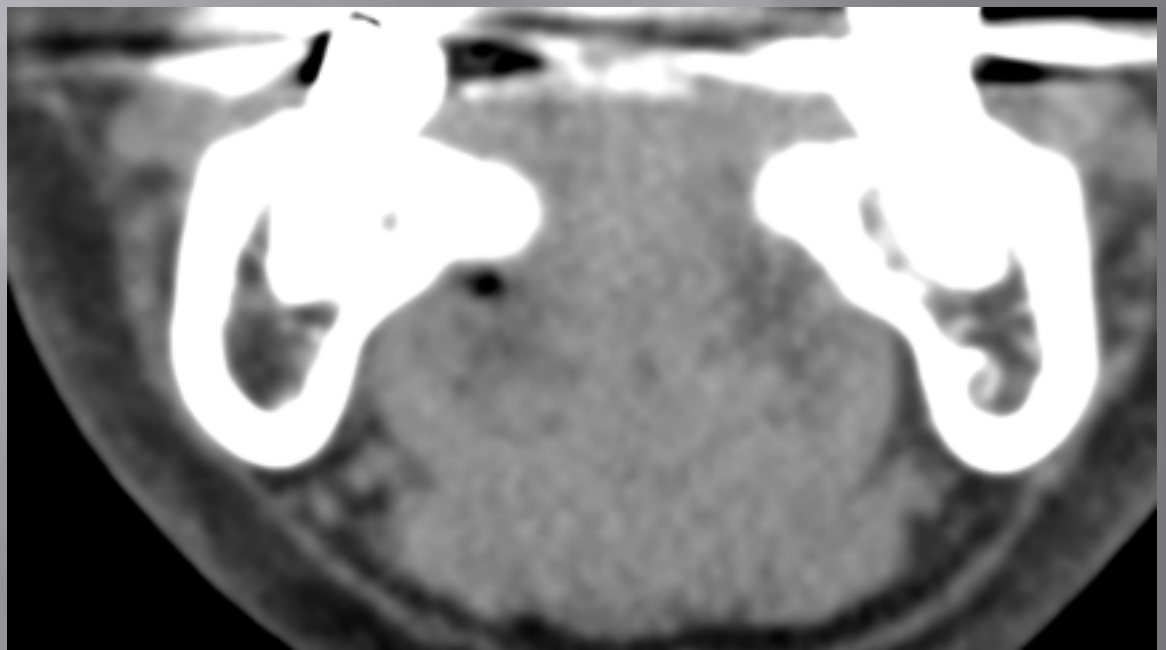
Describe the lesion



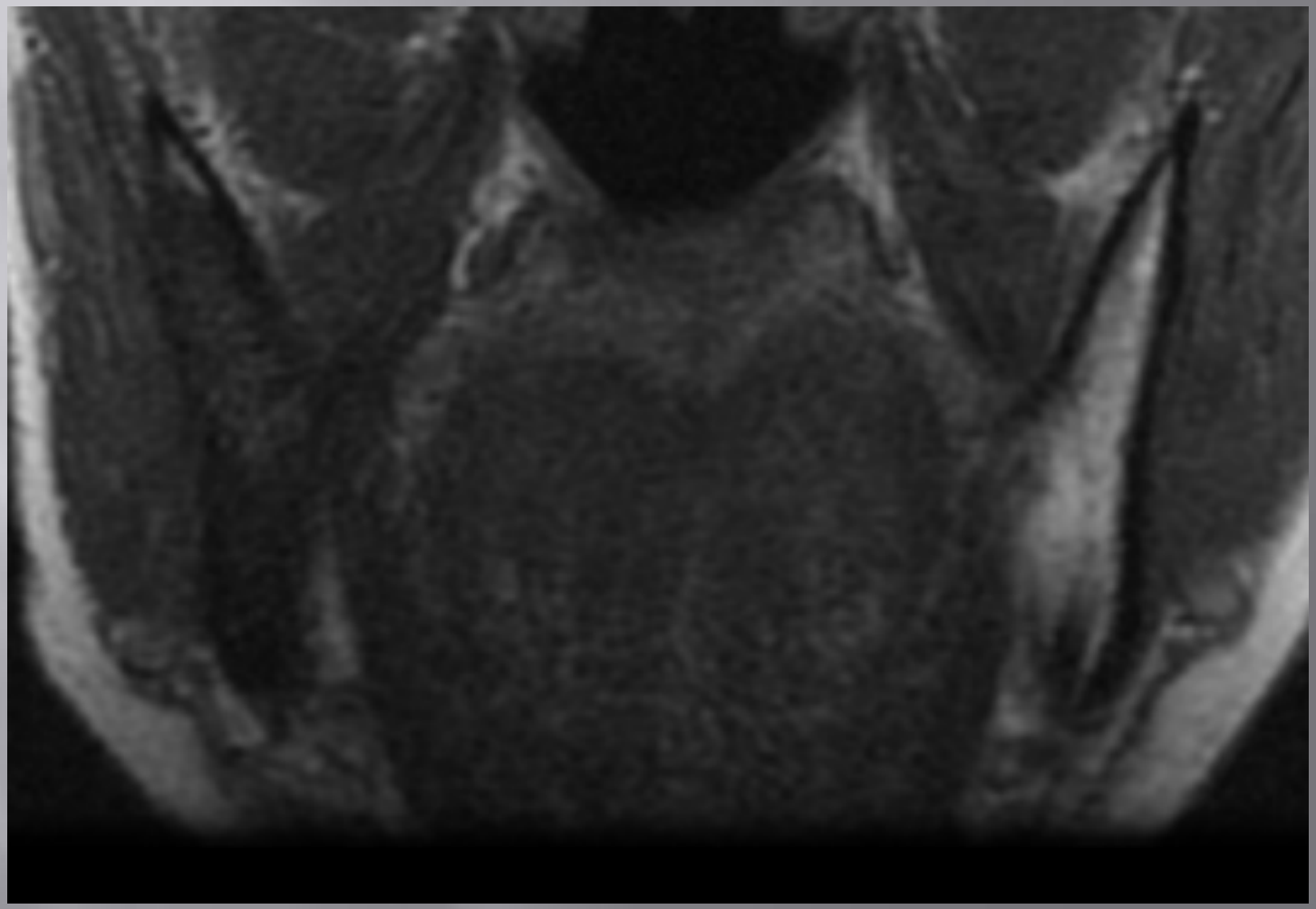
Torus mandibularis

- bony growth in the mandible along the surface nearest to the tongue
- usually present near the premolars and above the location of the mylohyoid muscle's attachment to the mandible

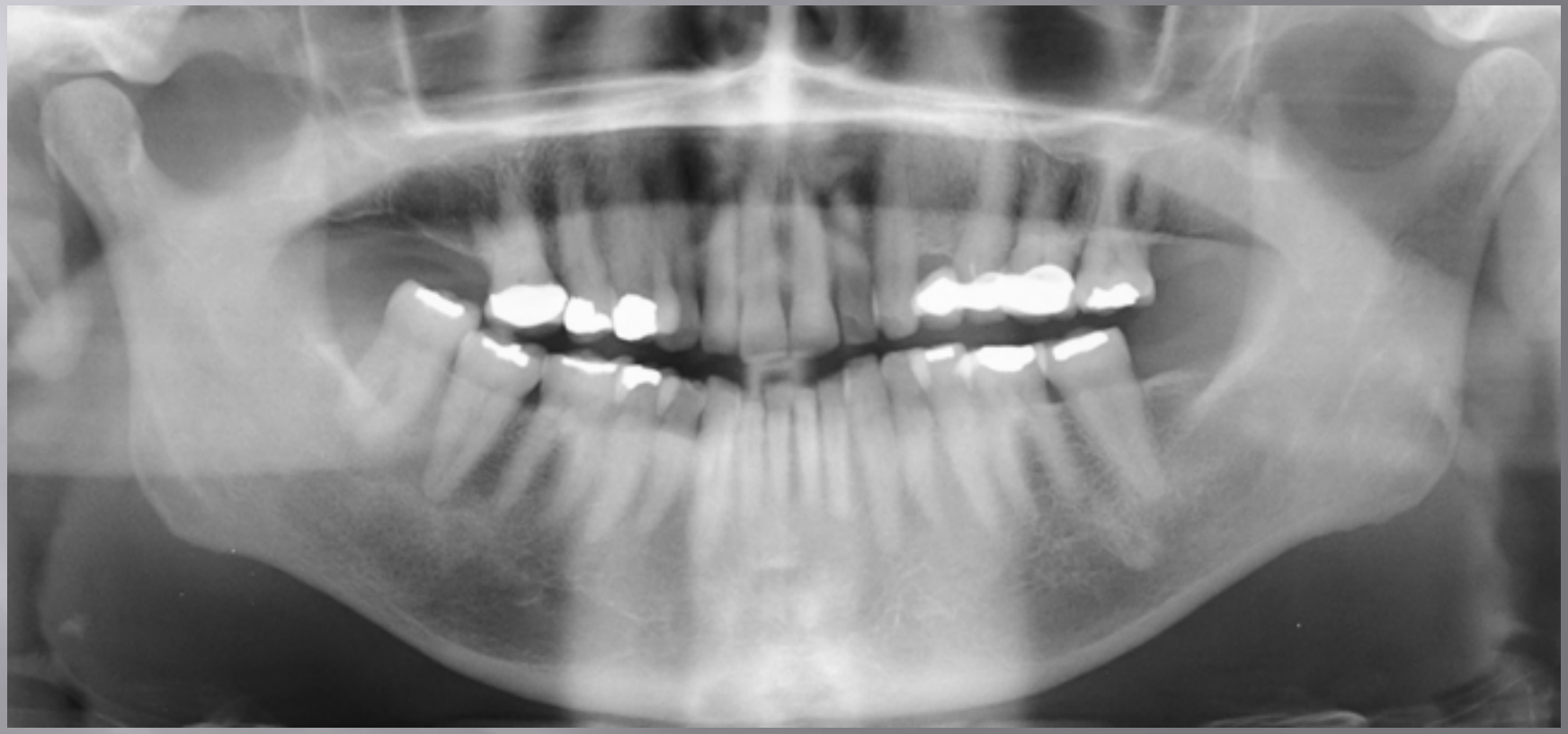




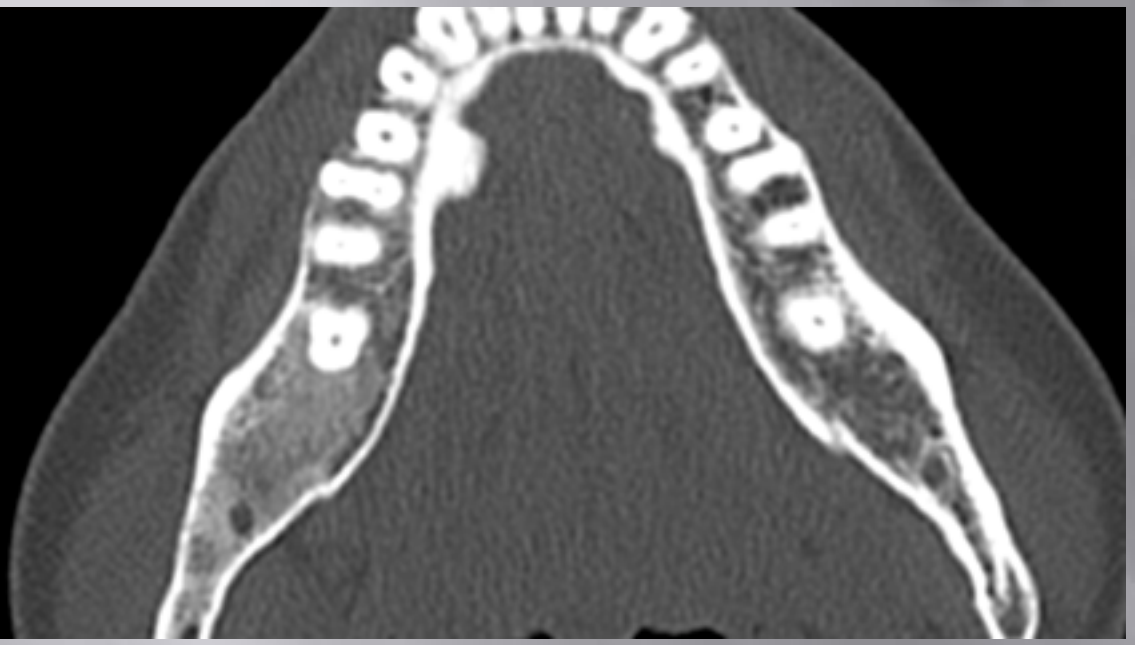
Right trigeminal neuralgia

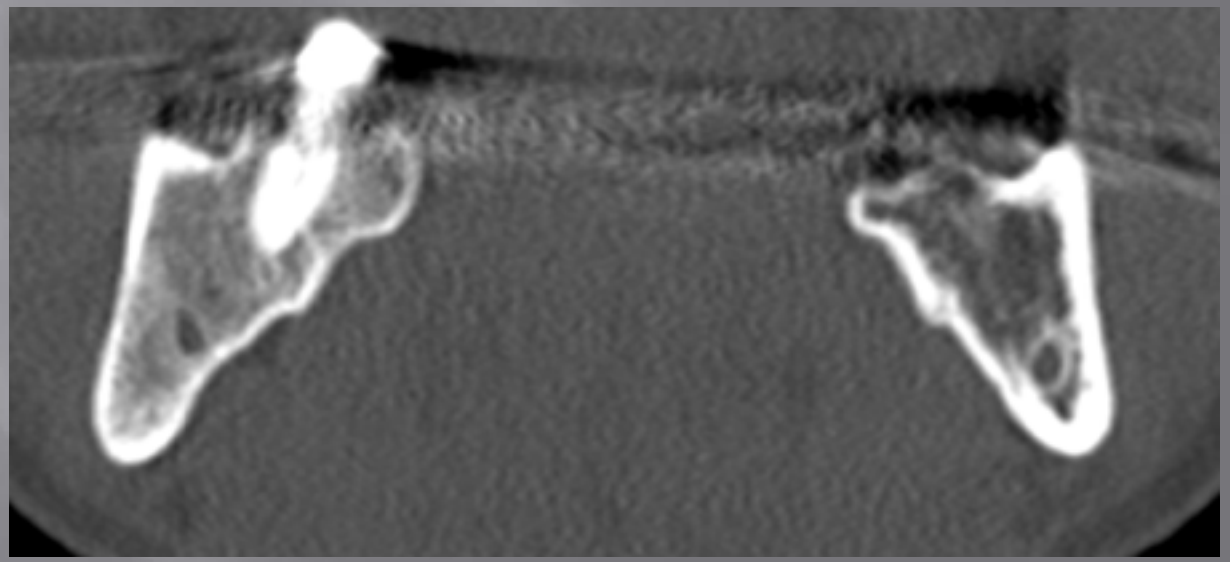


OPG- Normal



CT

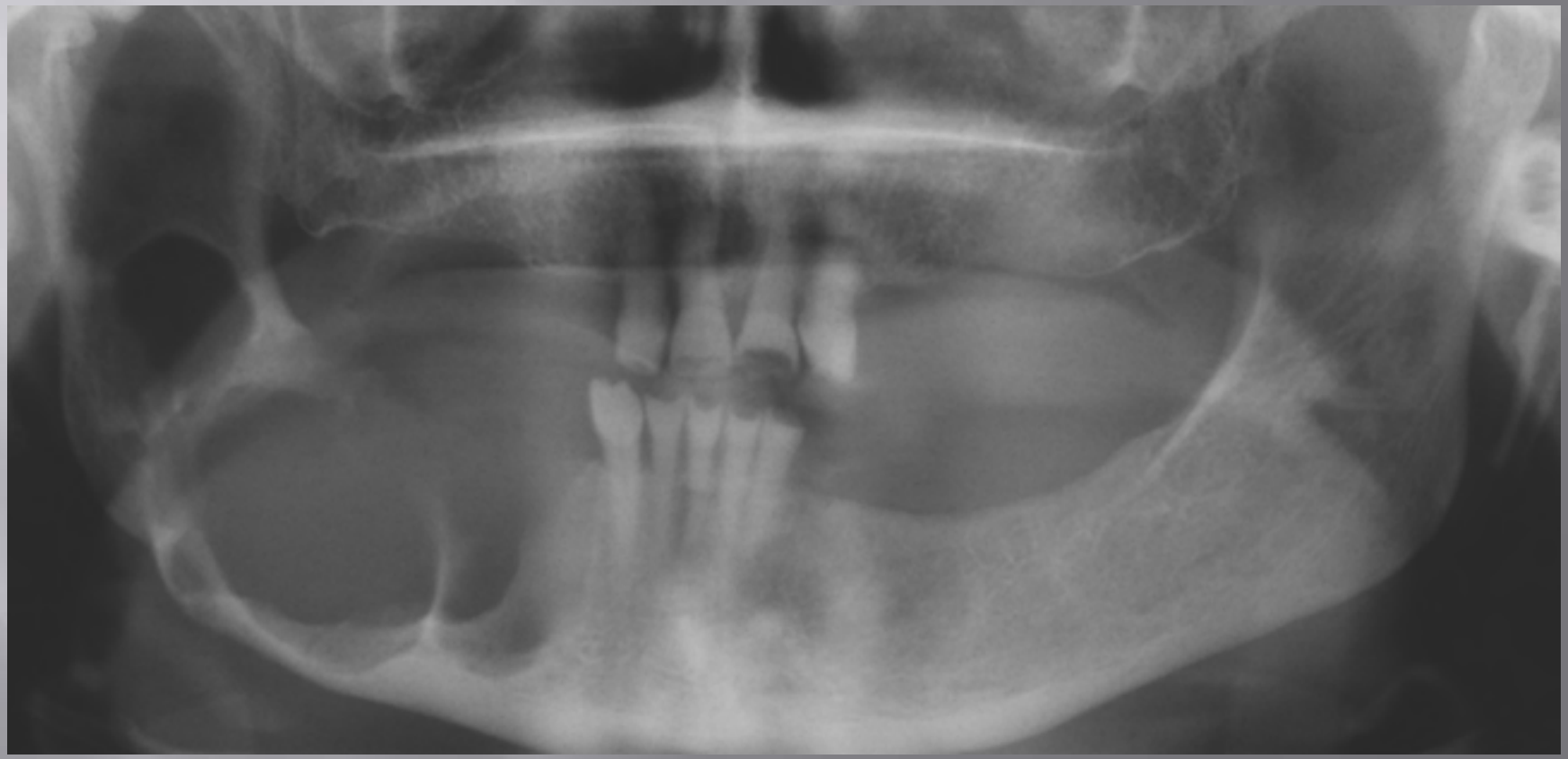


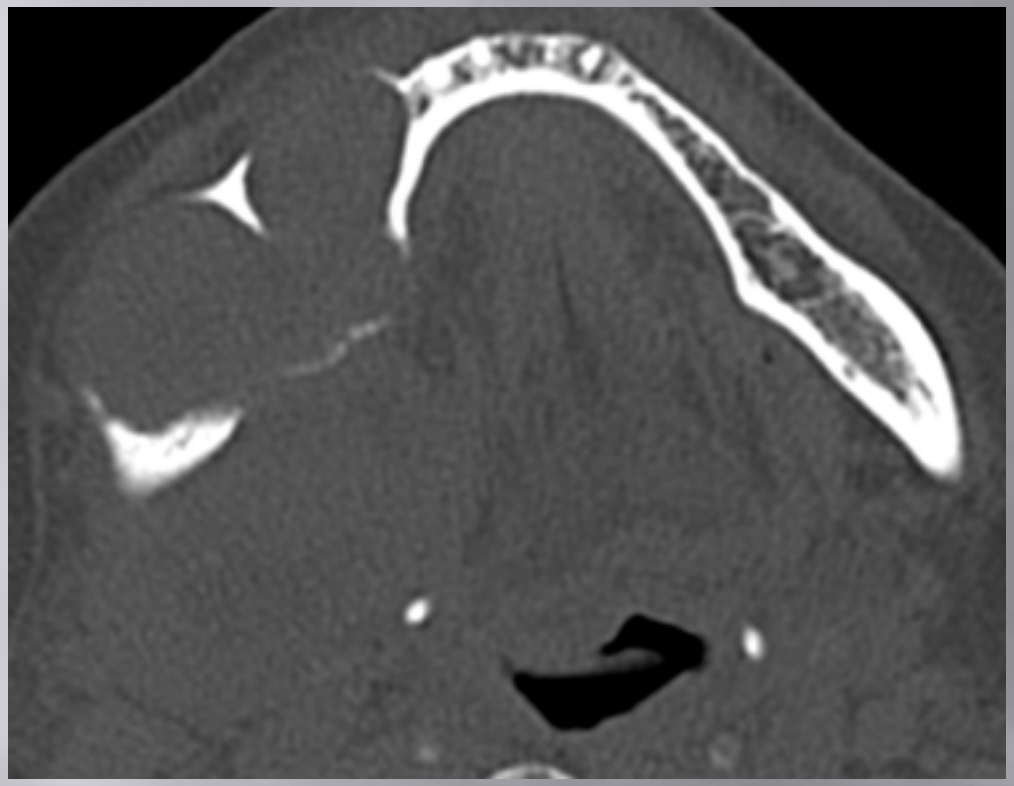


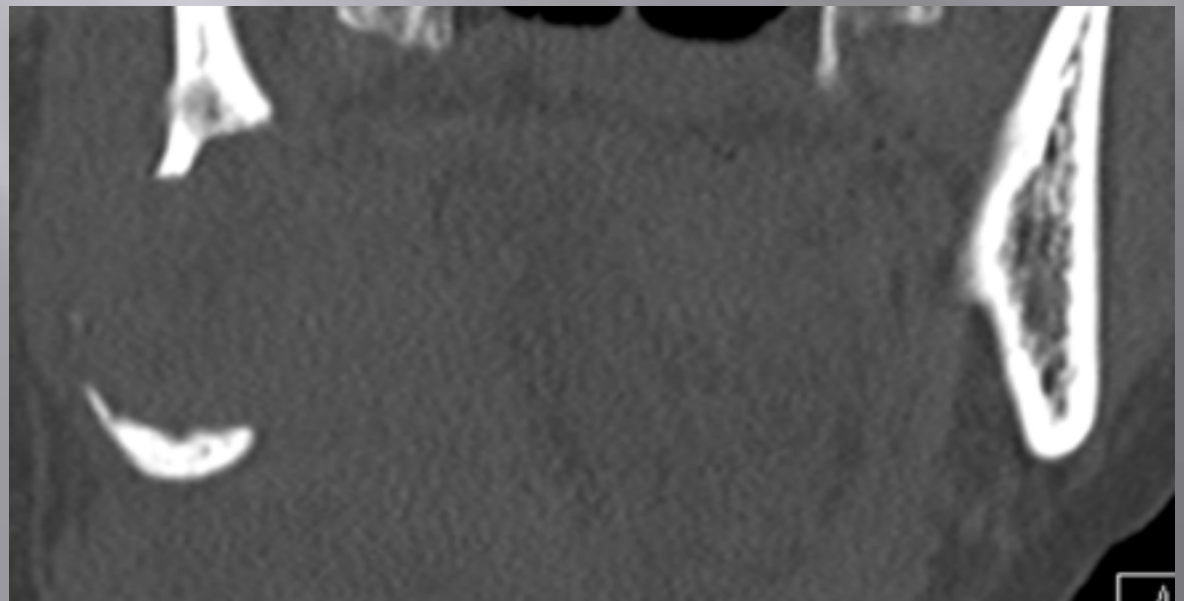
Fibrous dysplasia

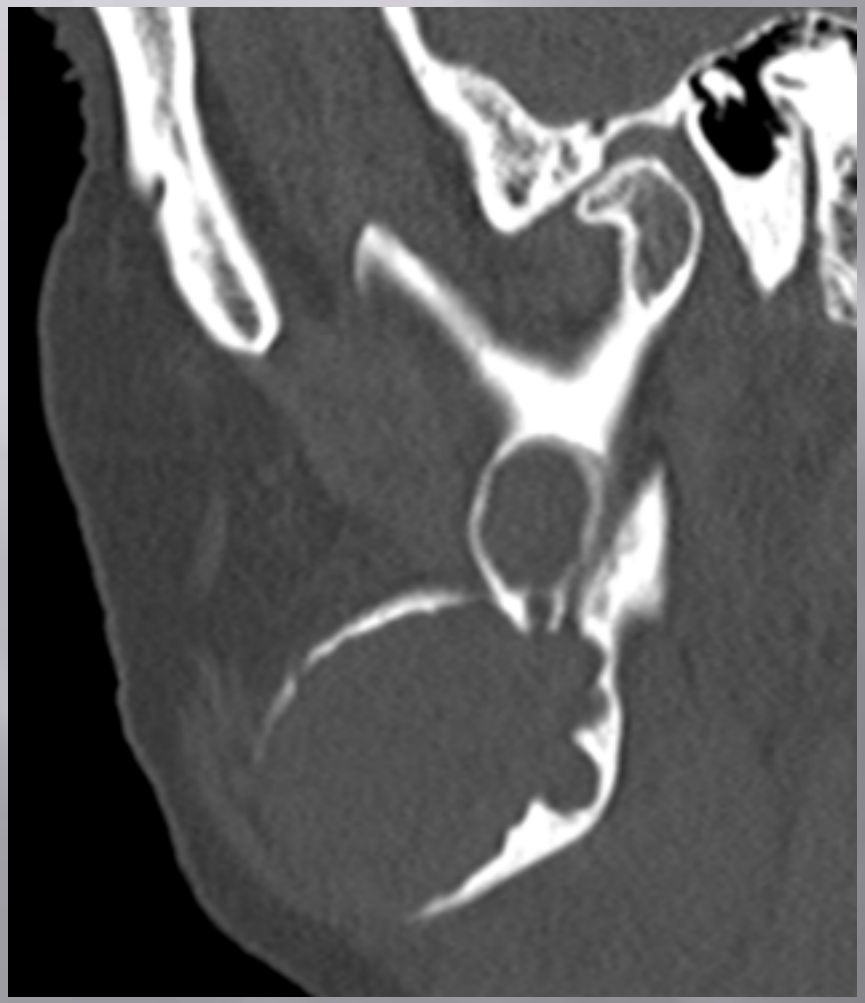
- Uncommon bone disorder in which scar-like (fibrous) tissue develops in place of normal bone
- This can weaken the affected bone and cause it to deform or fracture
- Monostotic, polyostotic, craniofacial or cherubism (mandible and maxilla alone childhood AD)

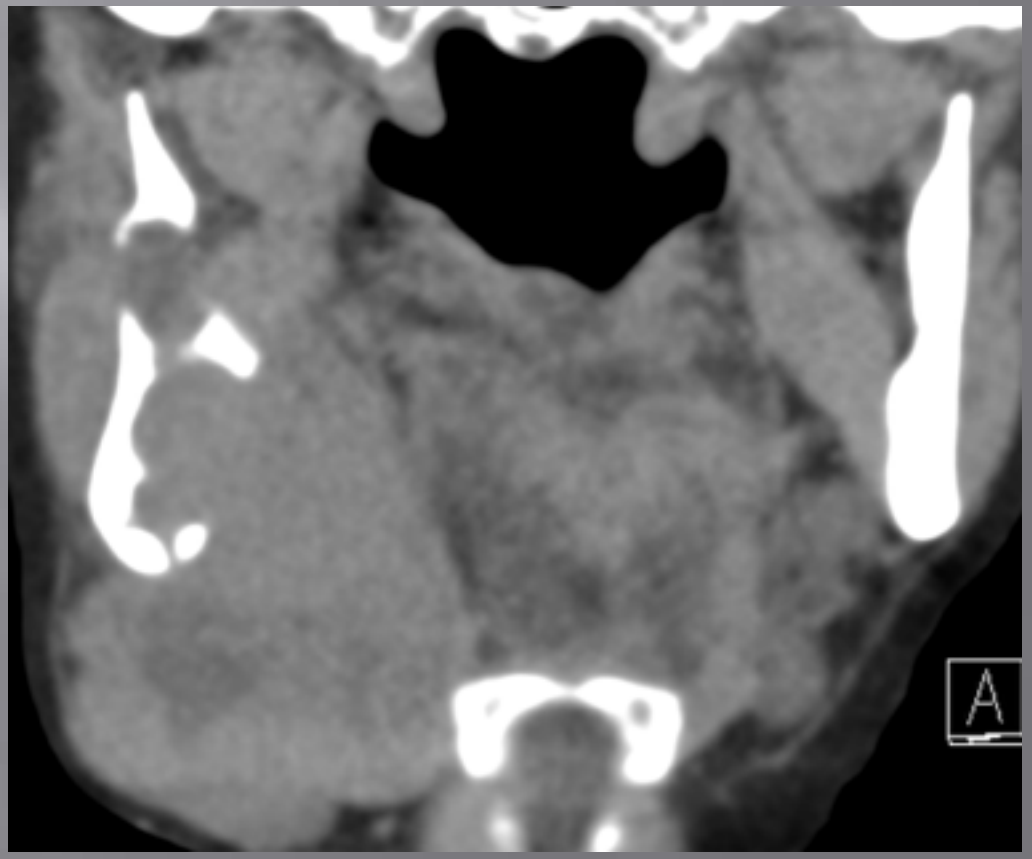
Describe the lesion







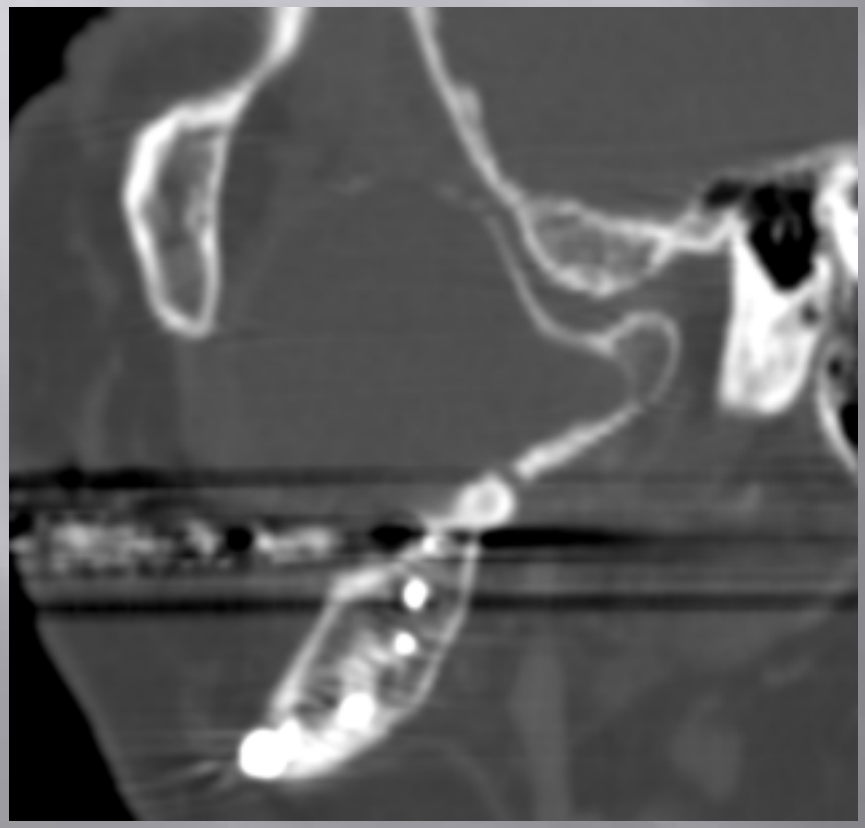


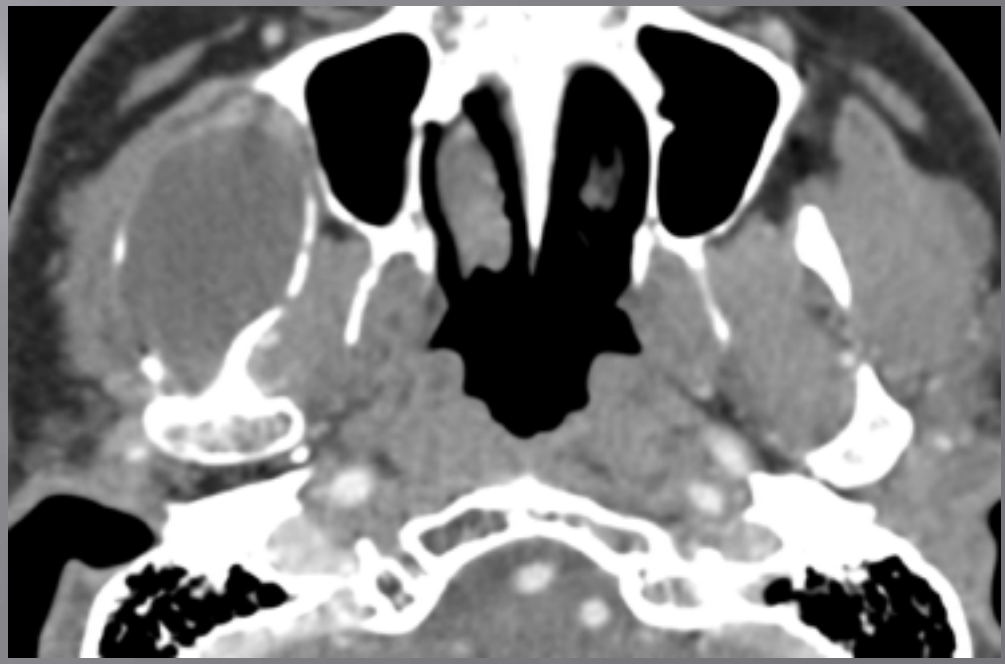

A

Ameloblastoma

- Benign but locally invasive odontogenic tumour
- arising from remnants of the dental lamina and dental organ or, less frequently, from the epithelial lining of an odontogenic cyst
- Posterior body and ramus
- Uni or multilocular radiolucent lesions – displacement and erosion of adjacent teeth
- 4^{th}- 6^{th} decade

Ameloblastoma

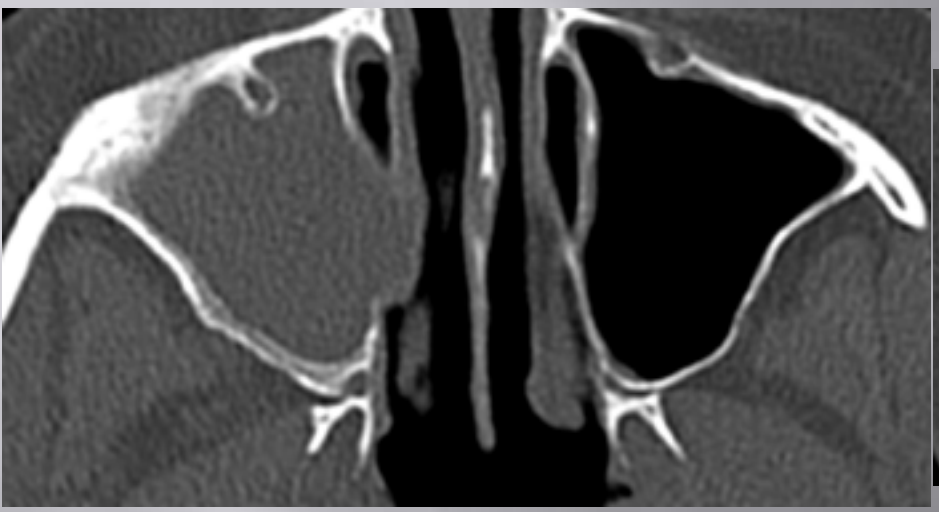


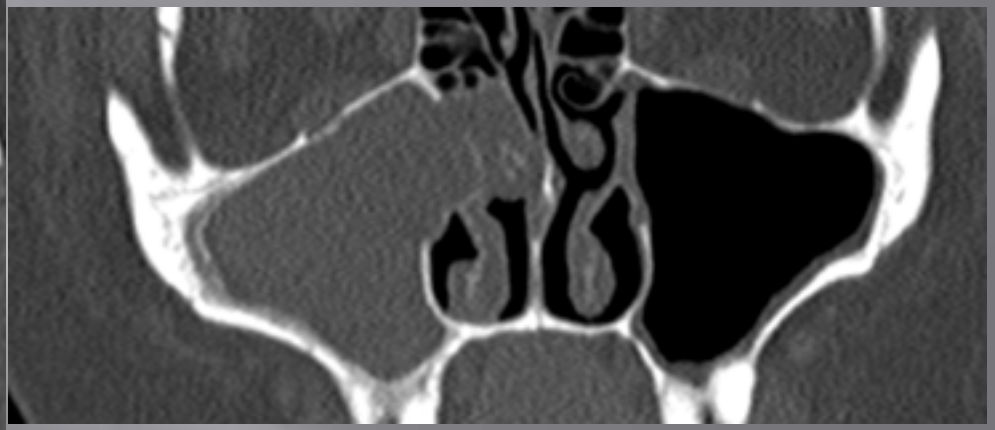


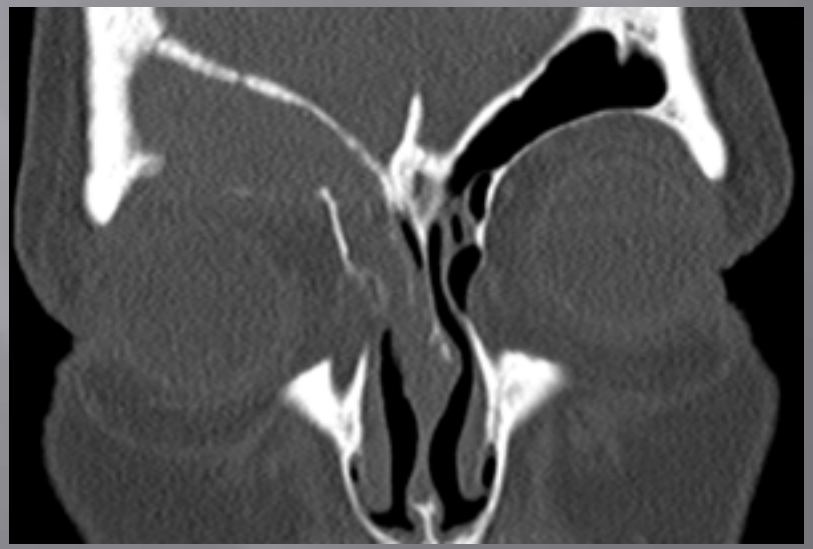
Other lucent bone lesions

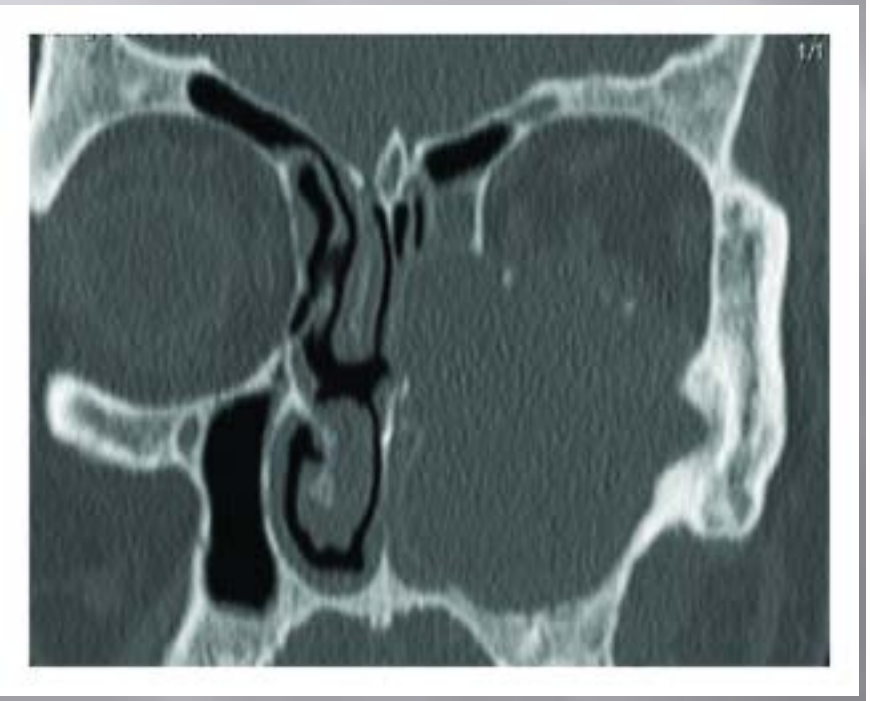
- Simple cysts
- Aneurysmal bone cysts
- Brown tumours
- Metastases
- Plasmacytomas

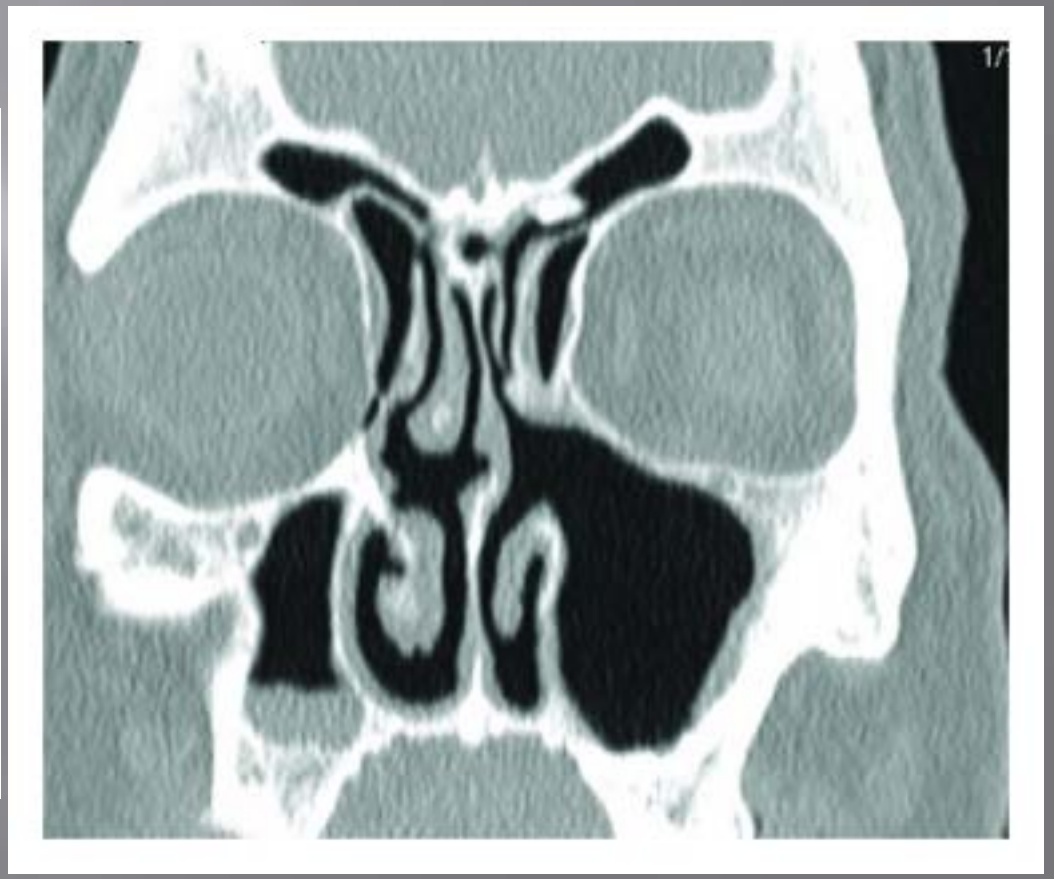
right hypoglobus/proptosis. History of sinusitis, pain right

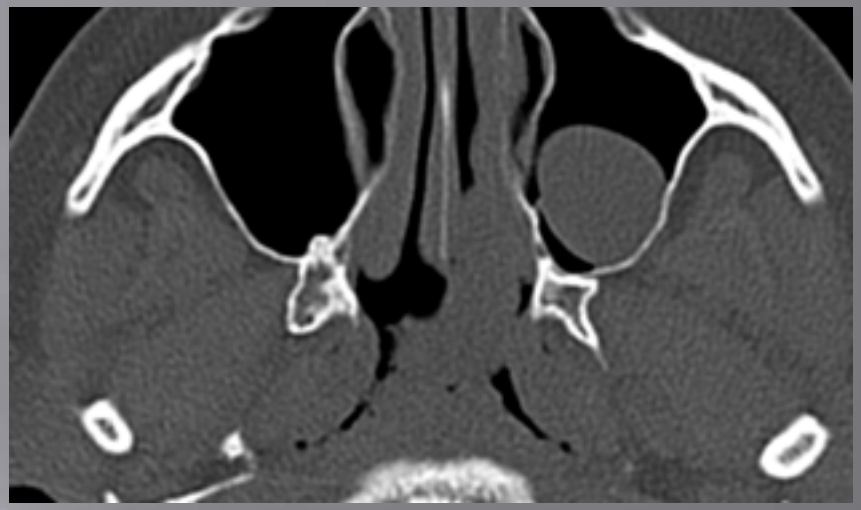


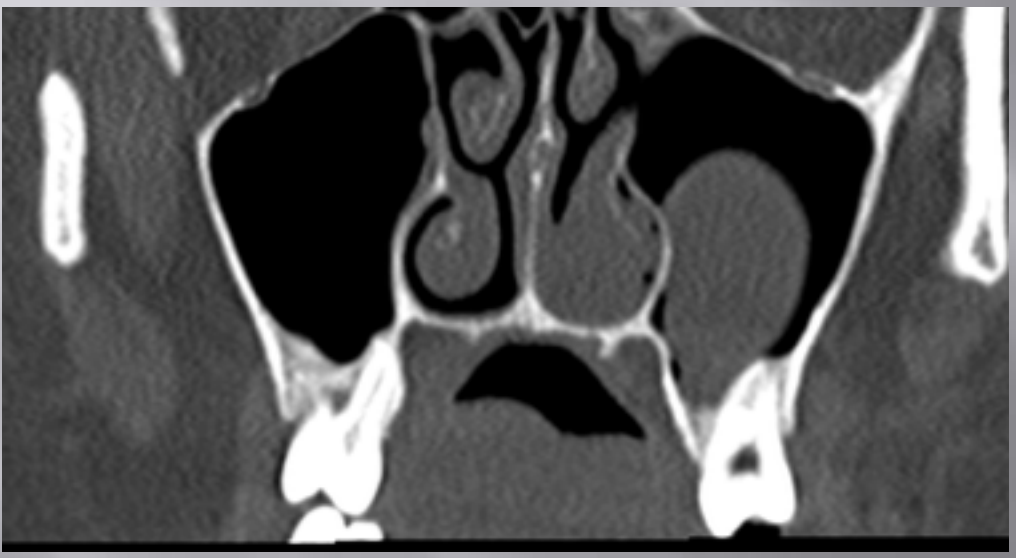


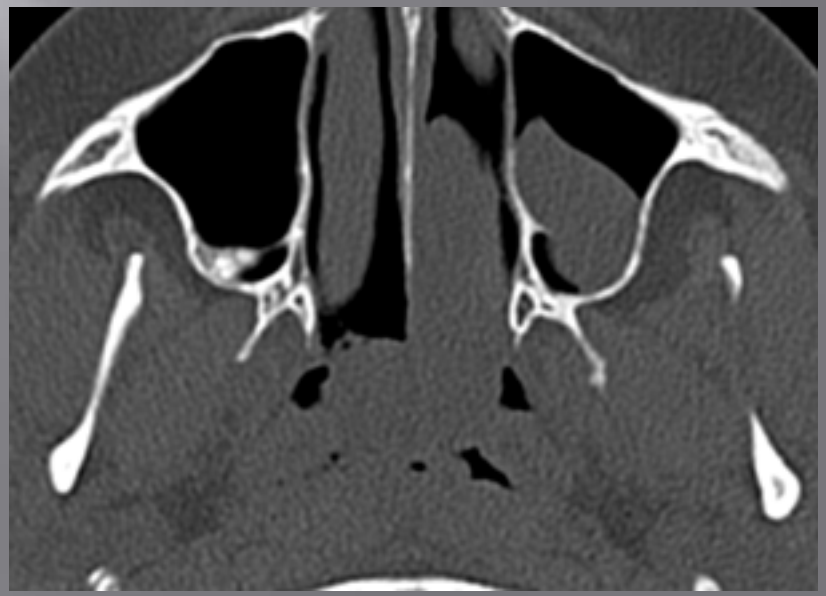


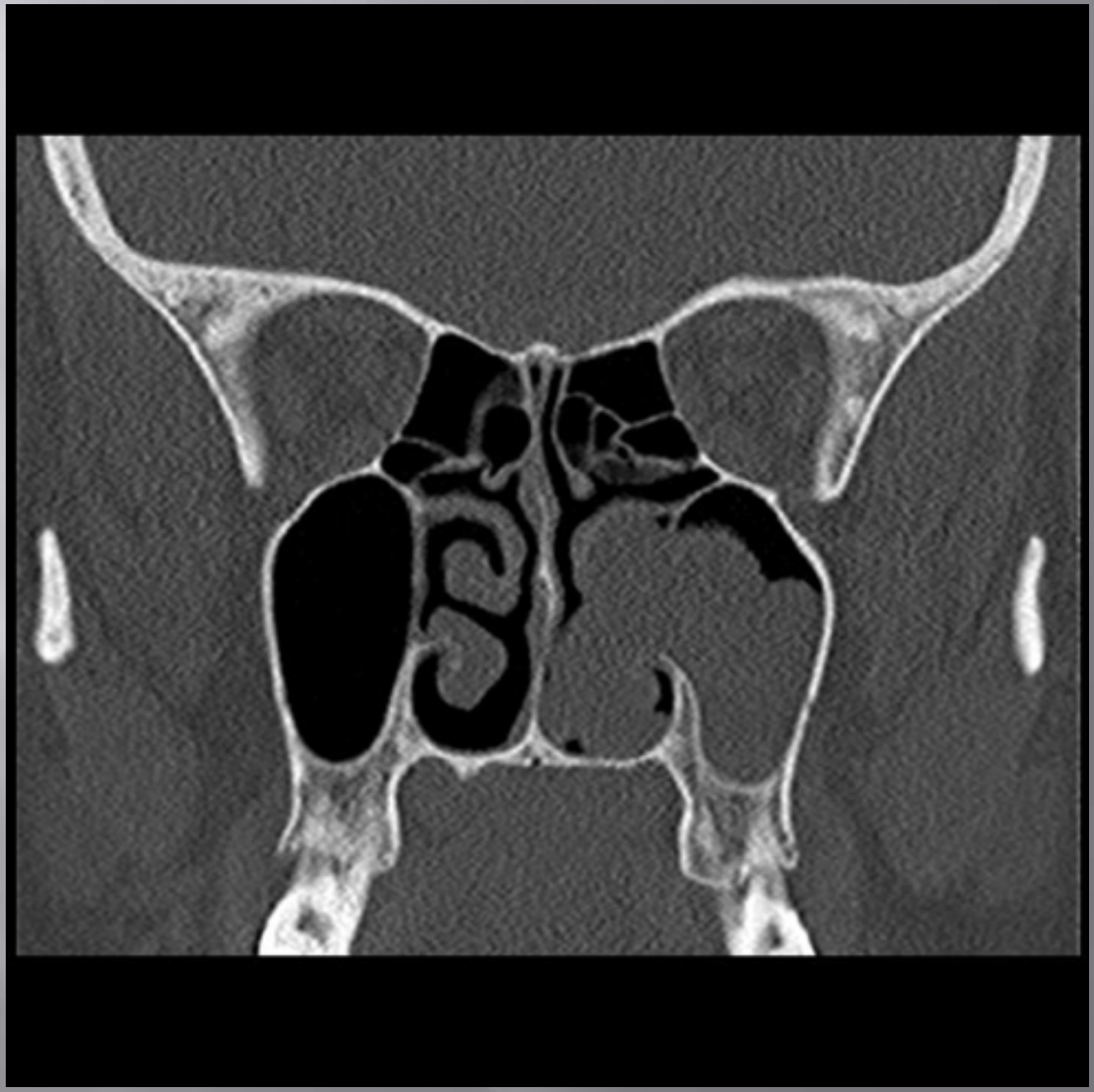




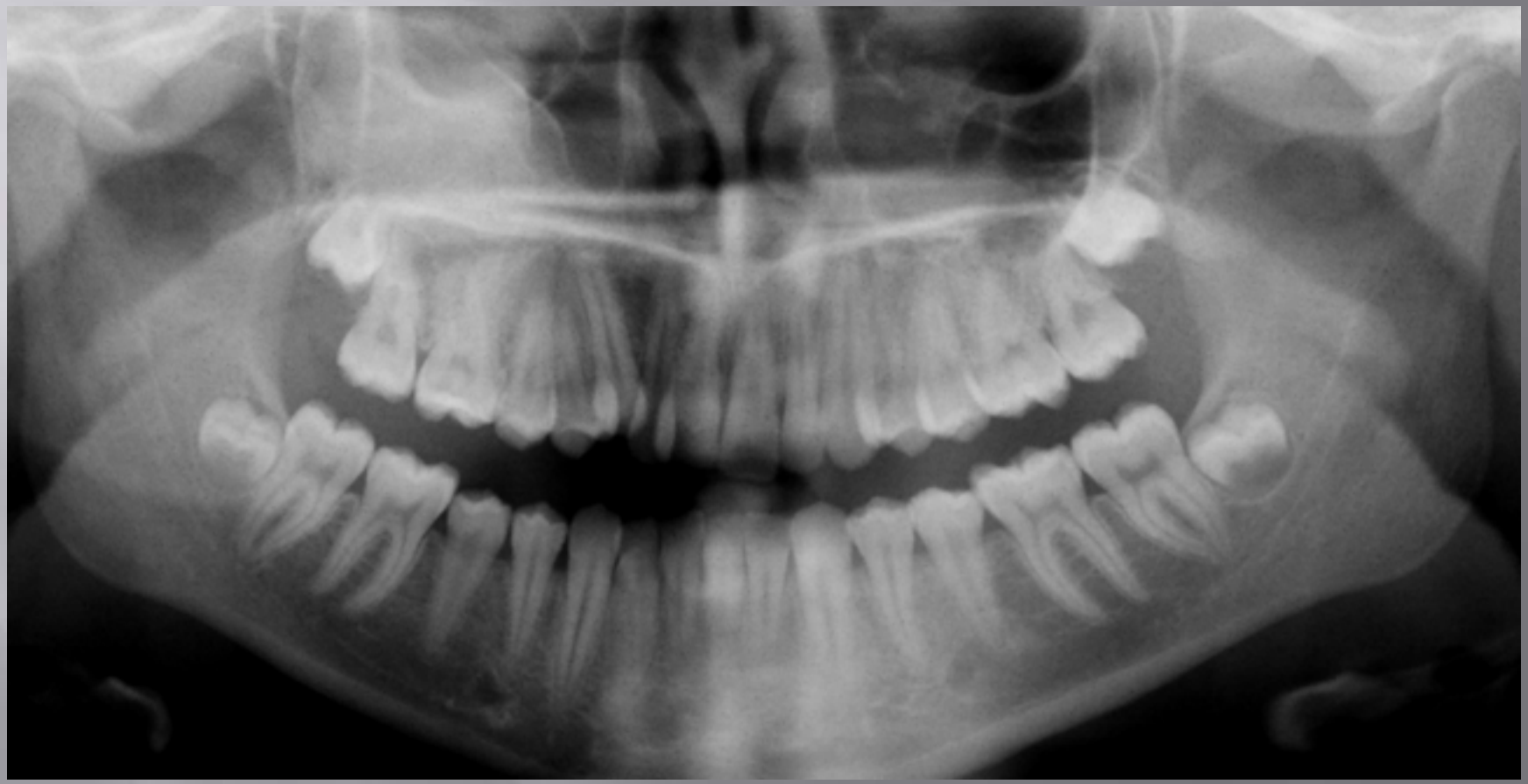


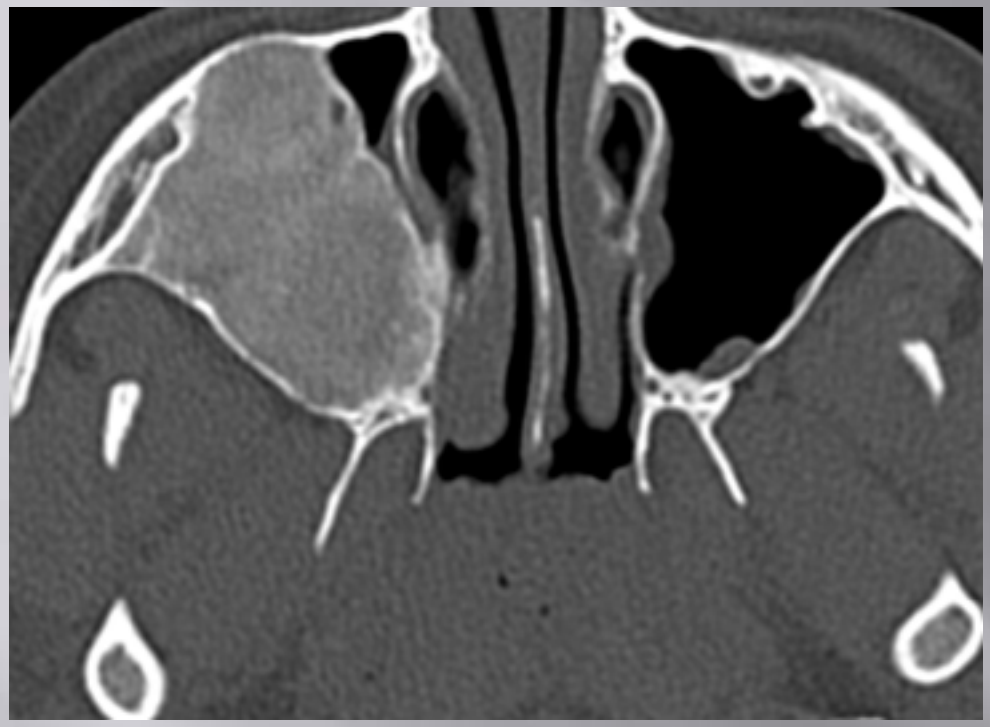


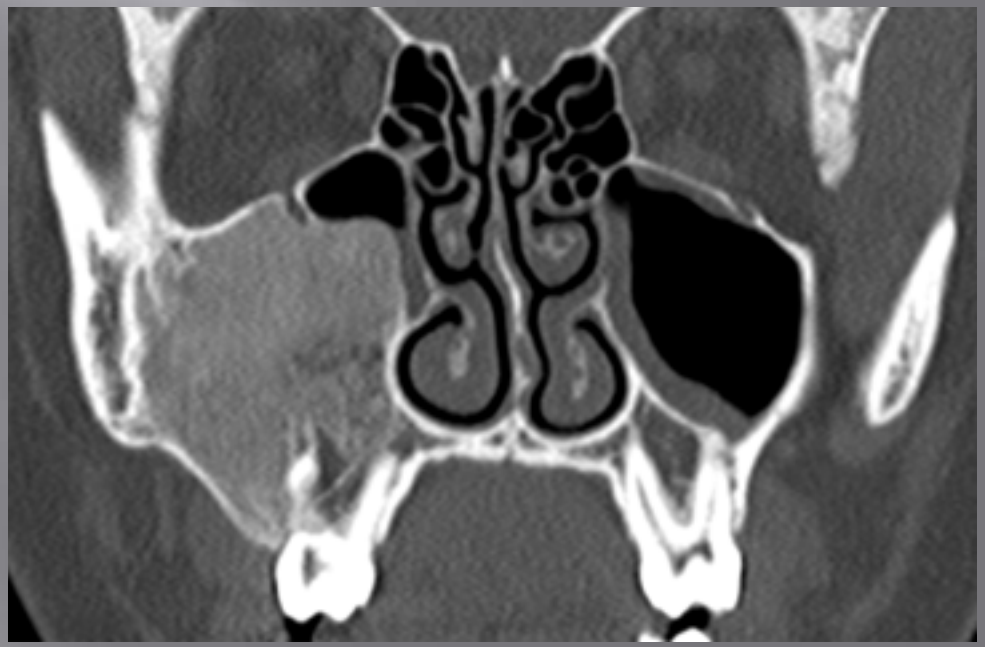




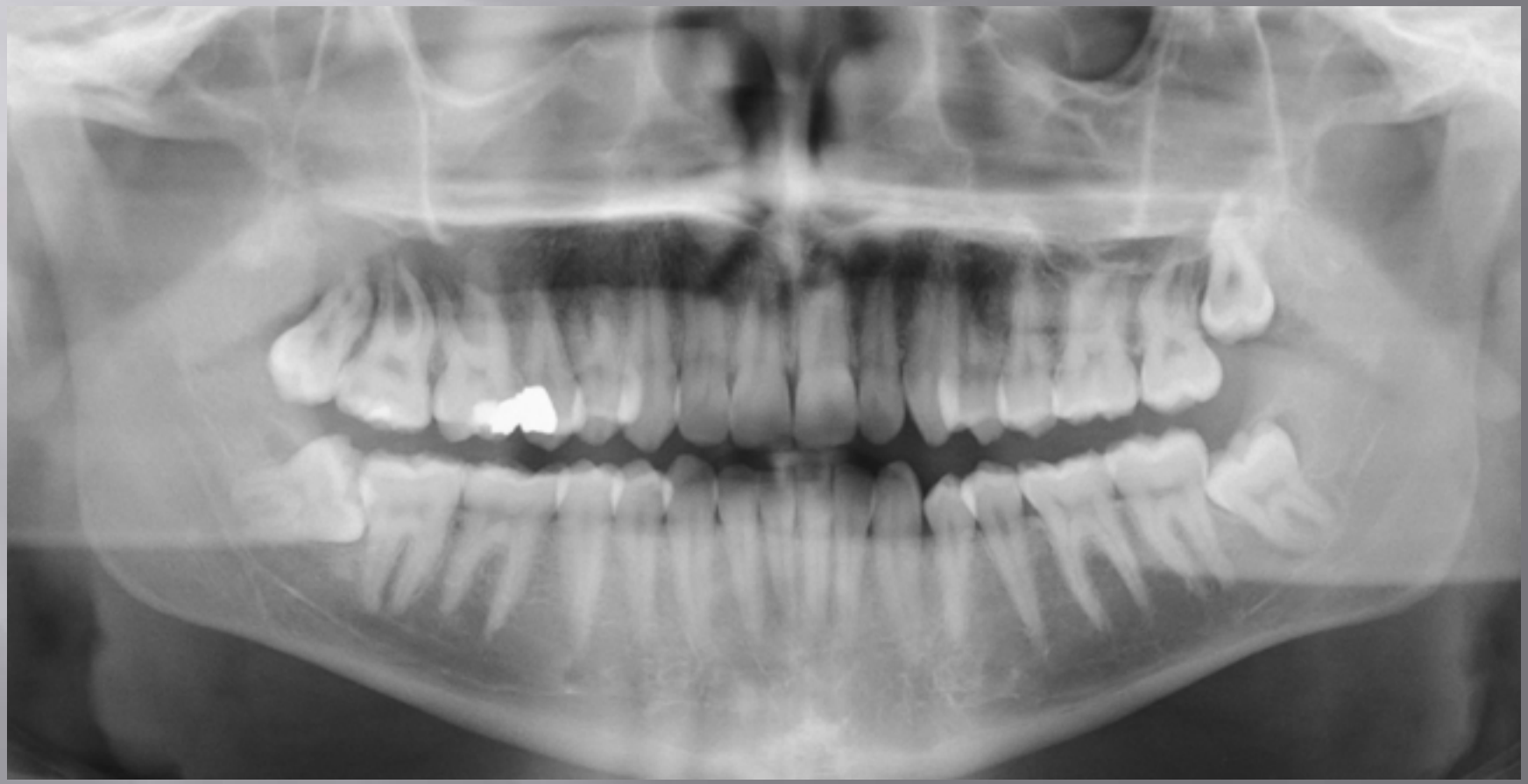
Opacity low level right maxillary antrum on OPT



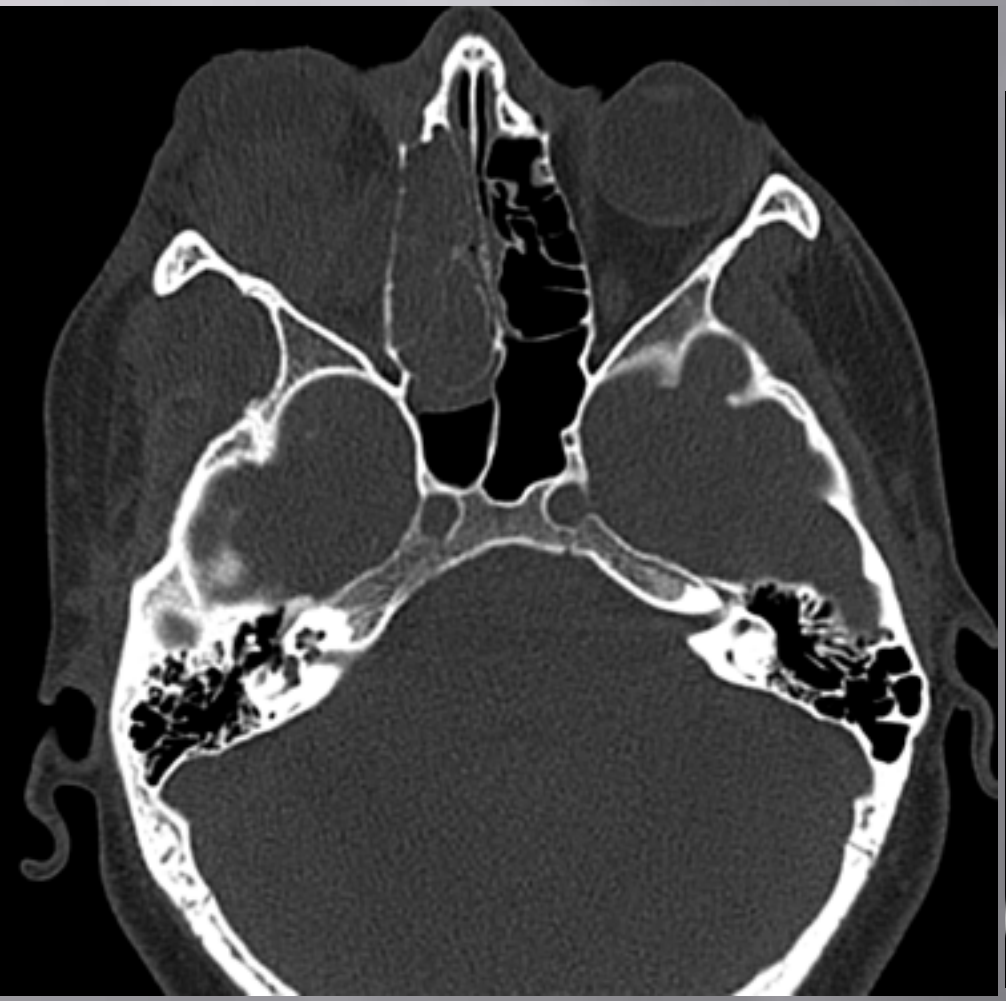


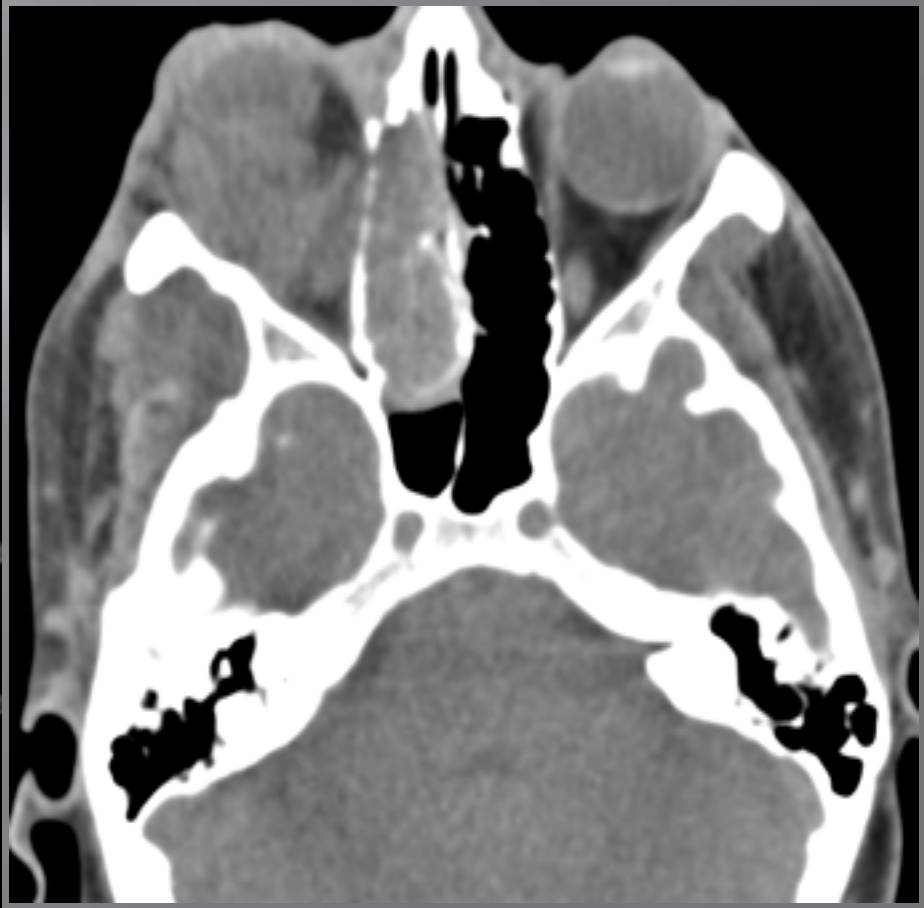


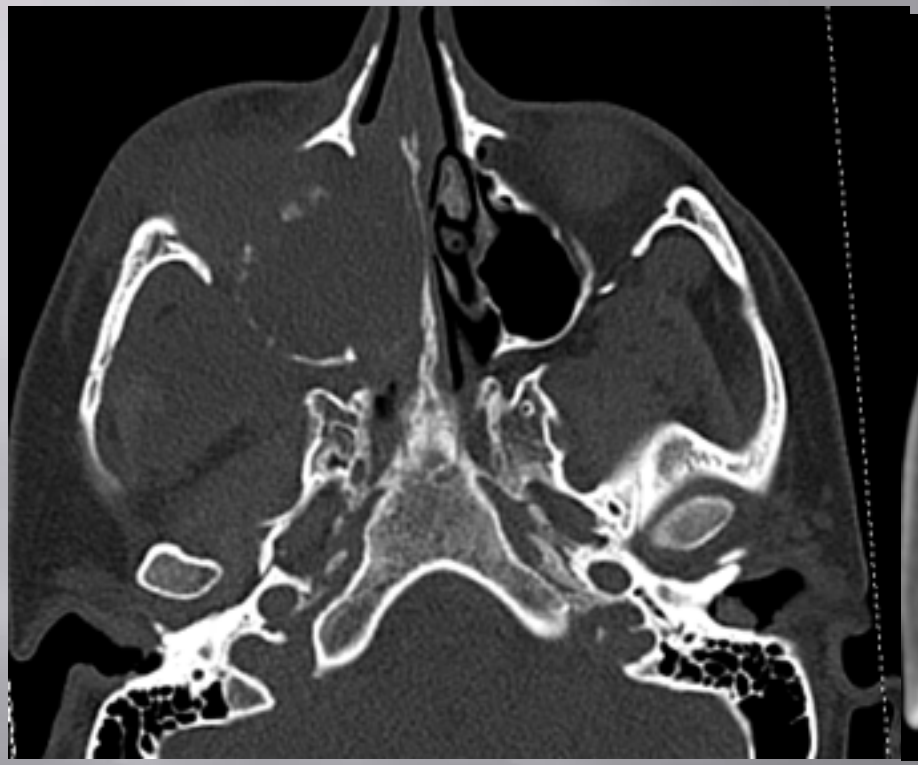
per orbital R eye ,green dicharge coming from R eye ,abscess drained from soft palate 10/7 ago

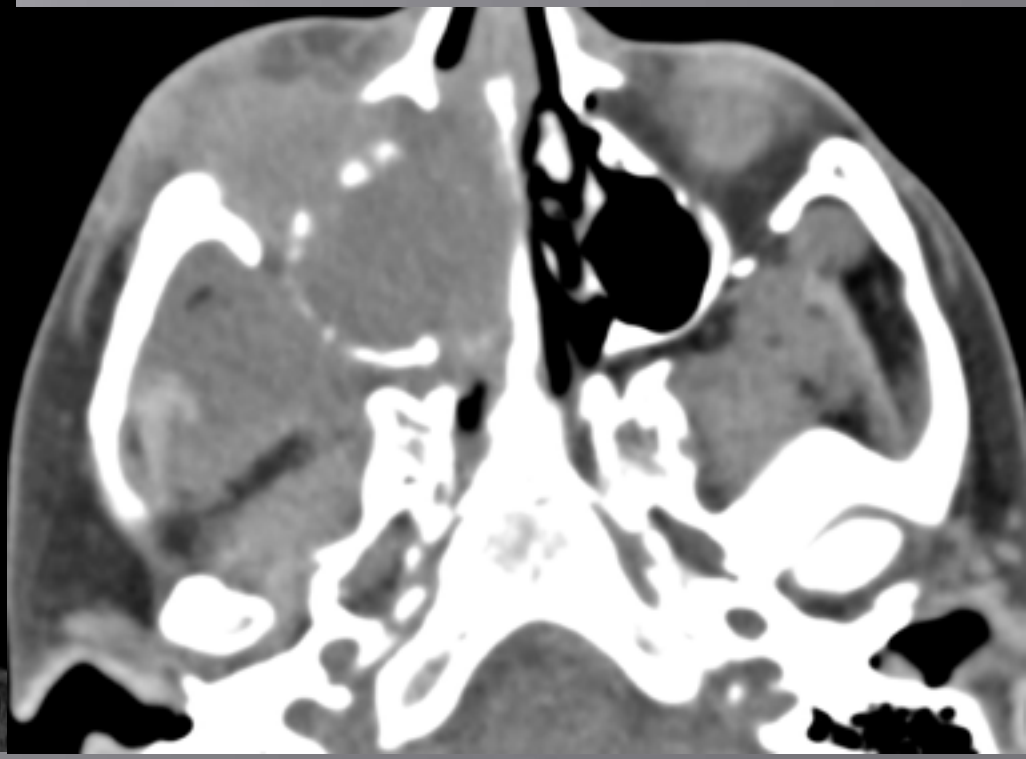


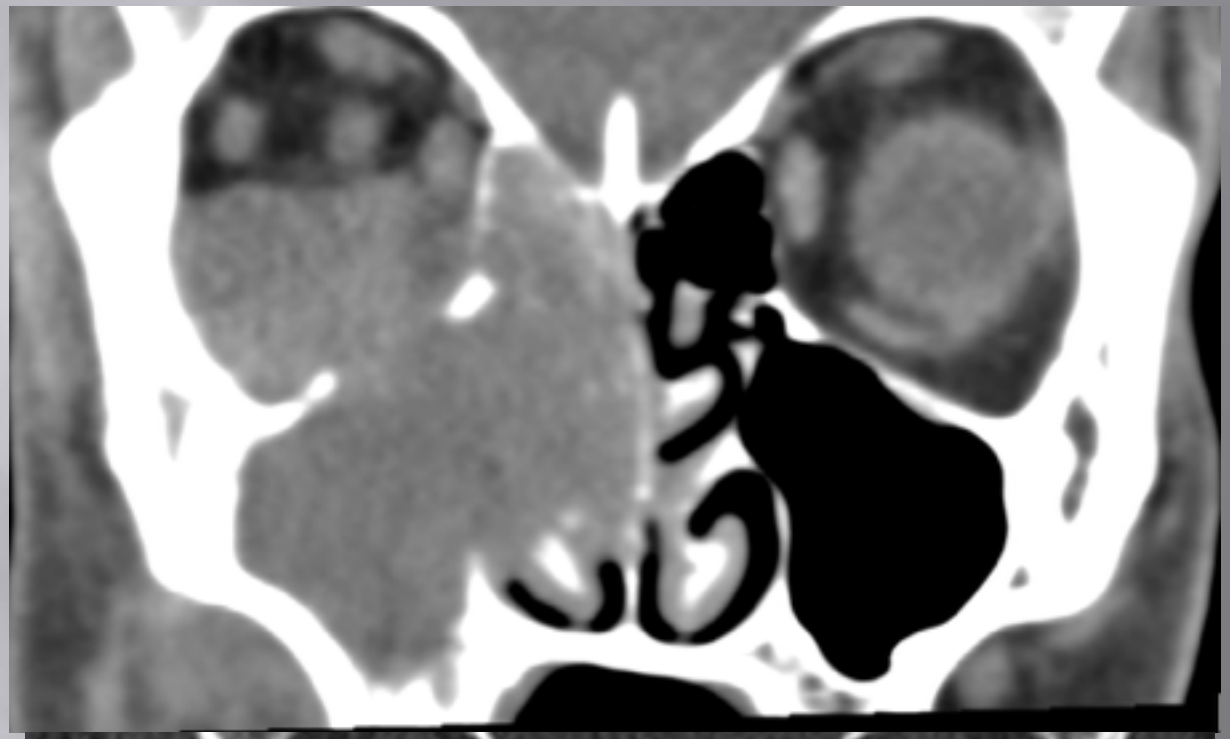
CT

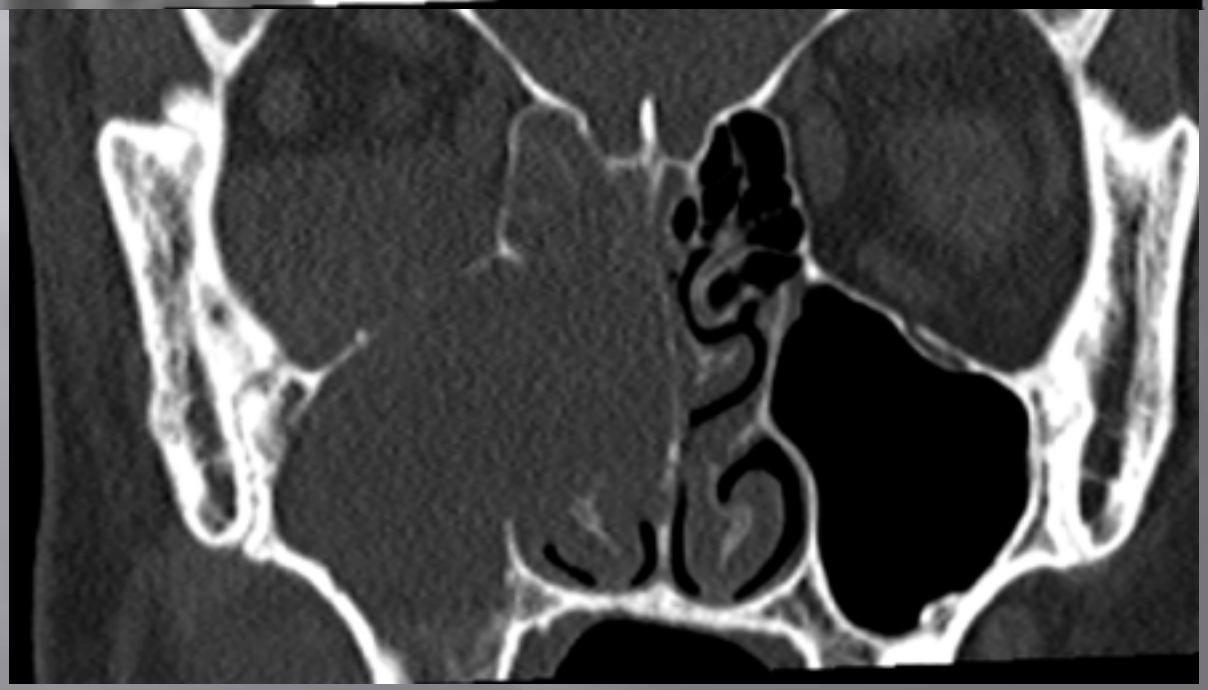




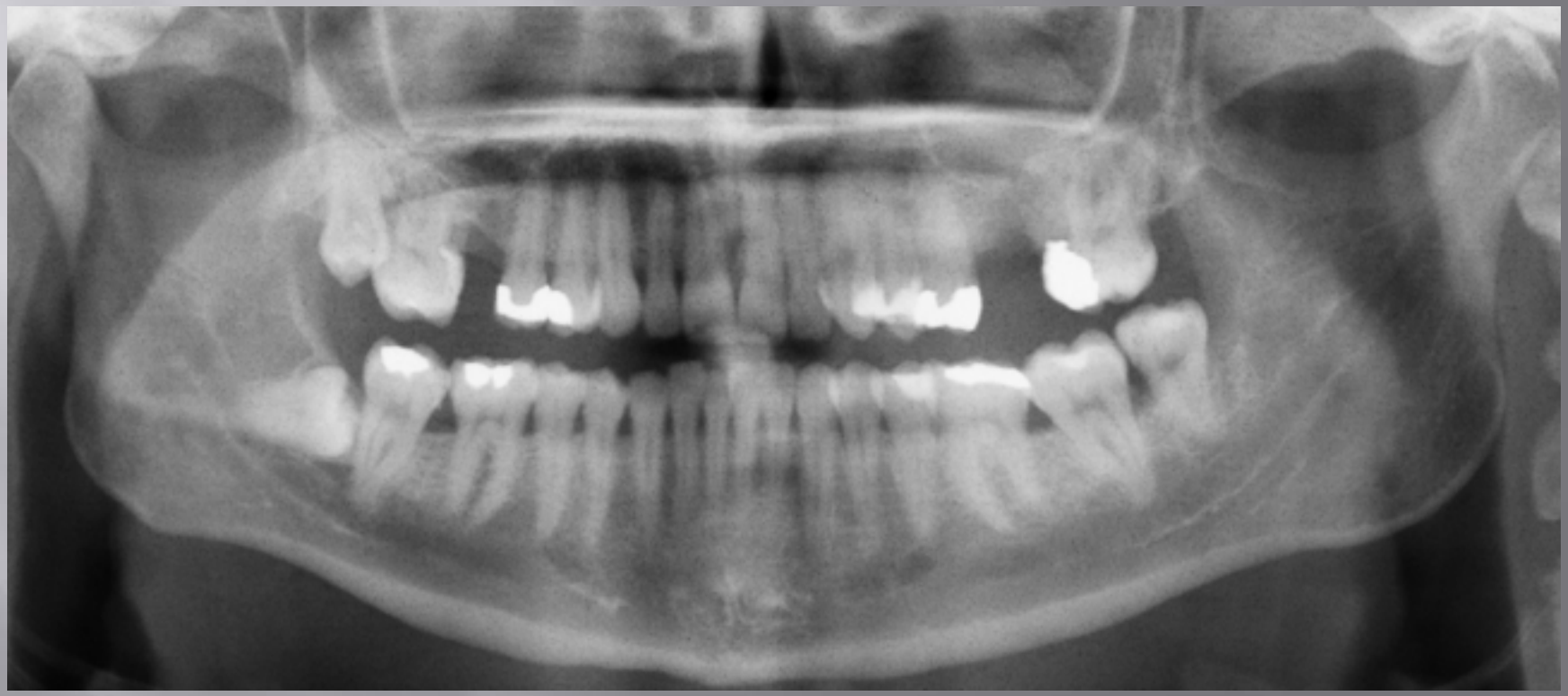


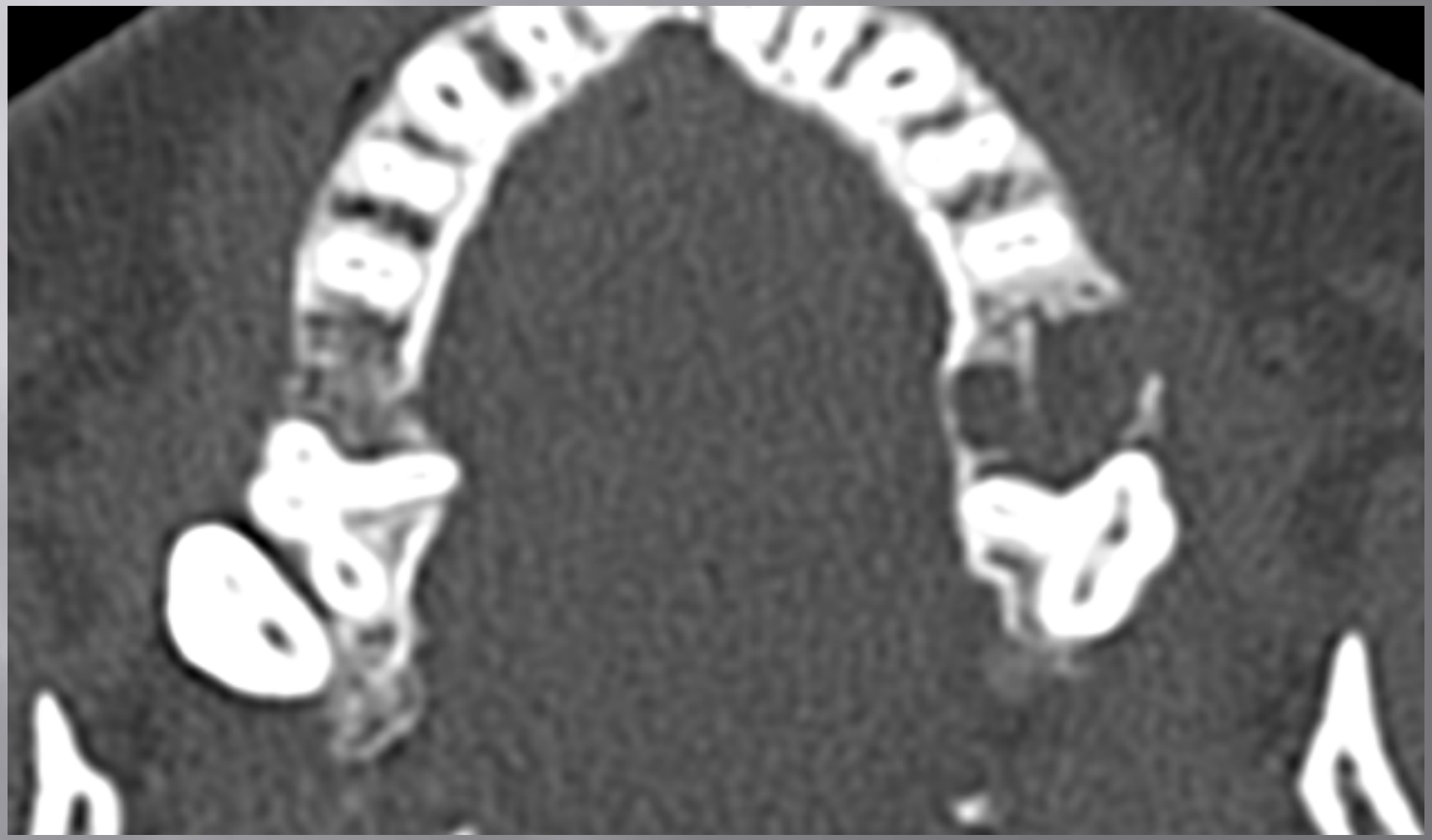


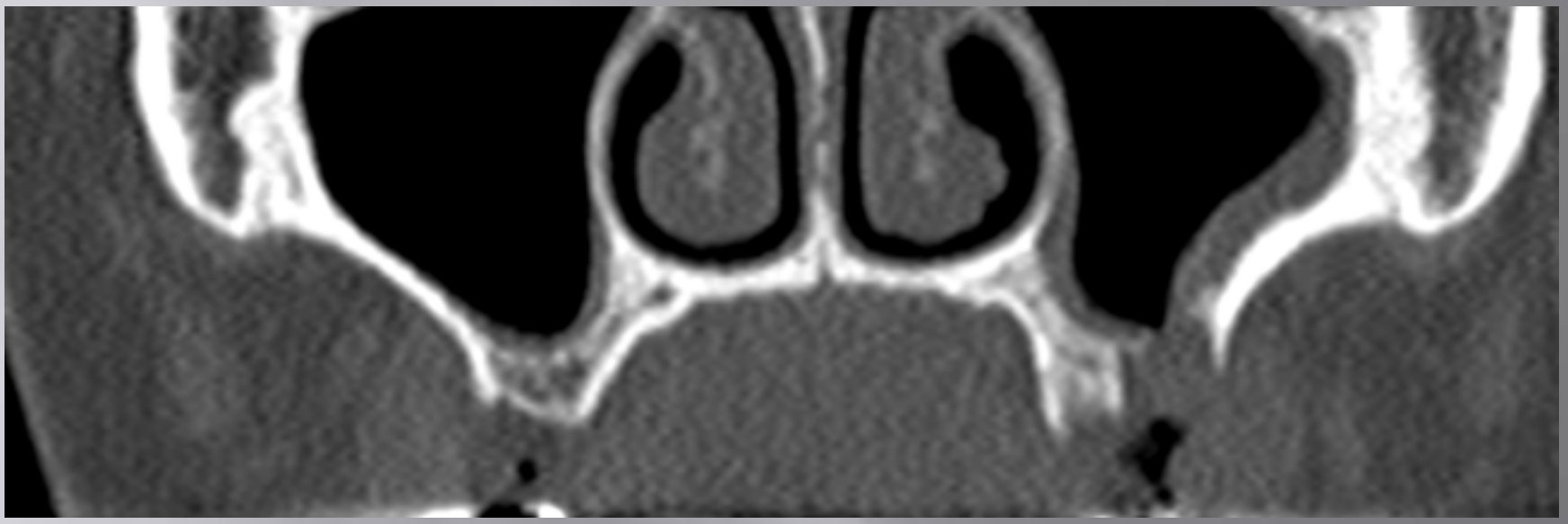


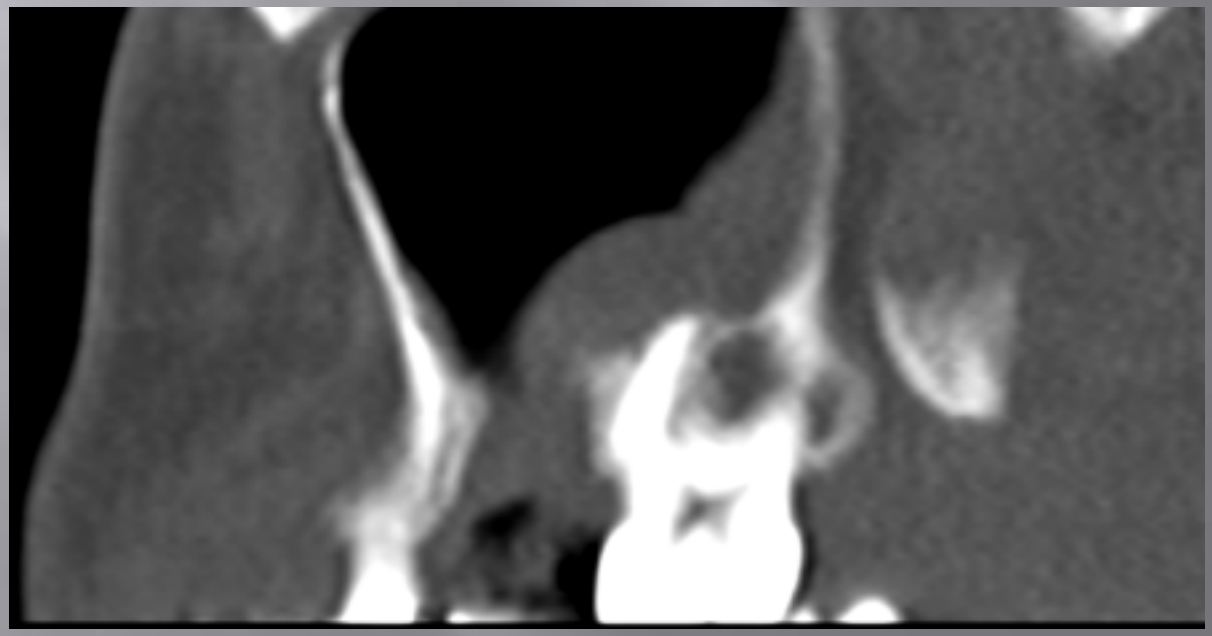


Post tooth extraction ? Oro antral fistula ?displaced tooth root

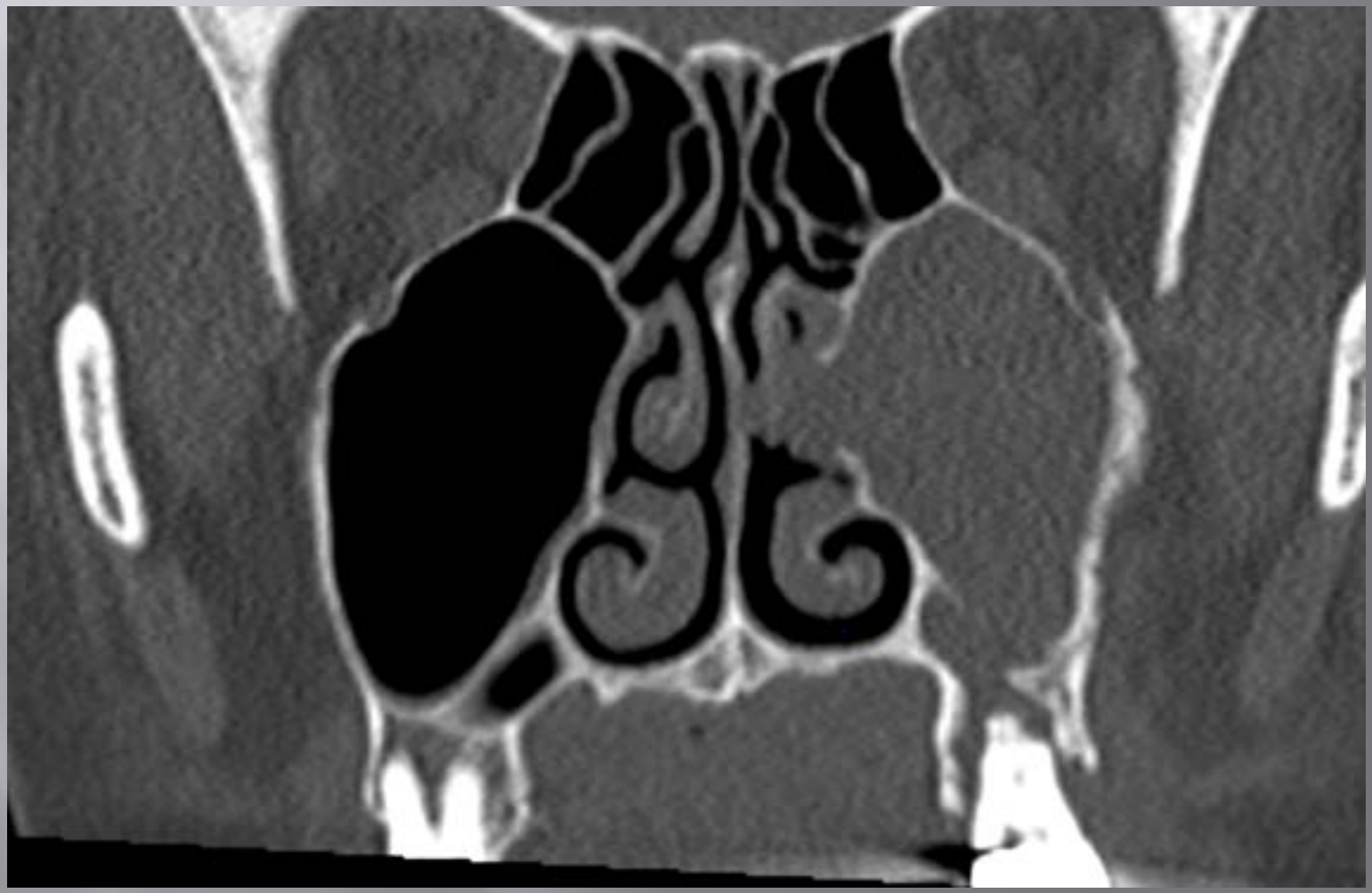




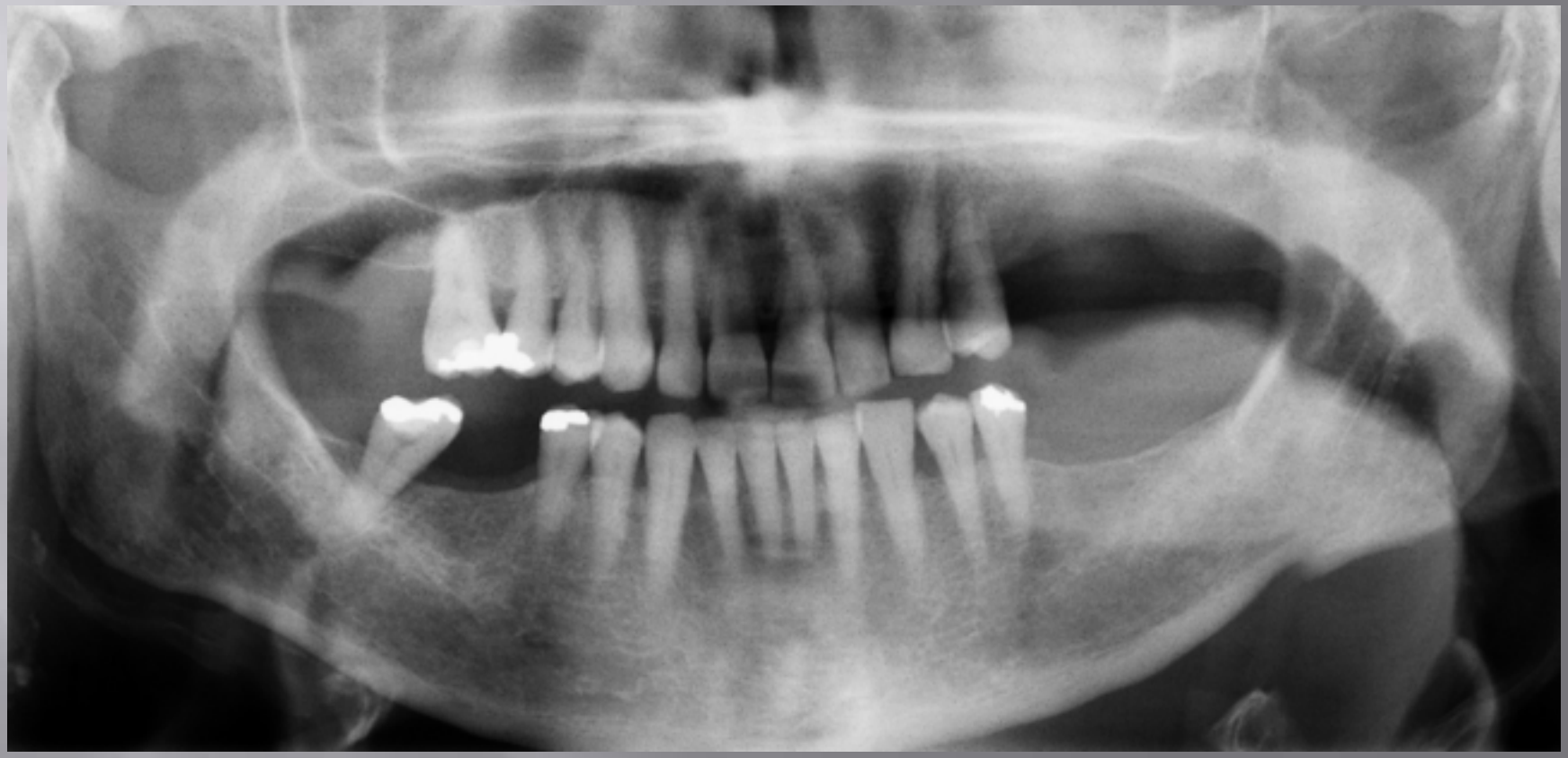


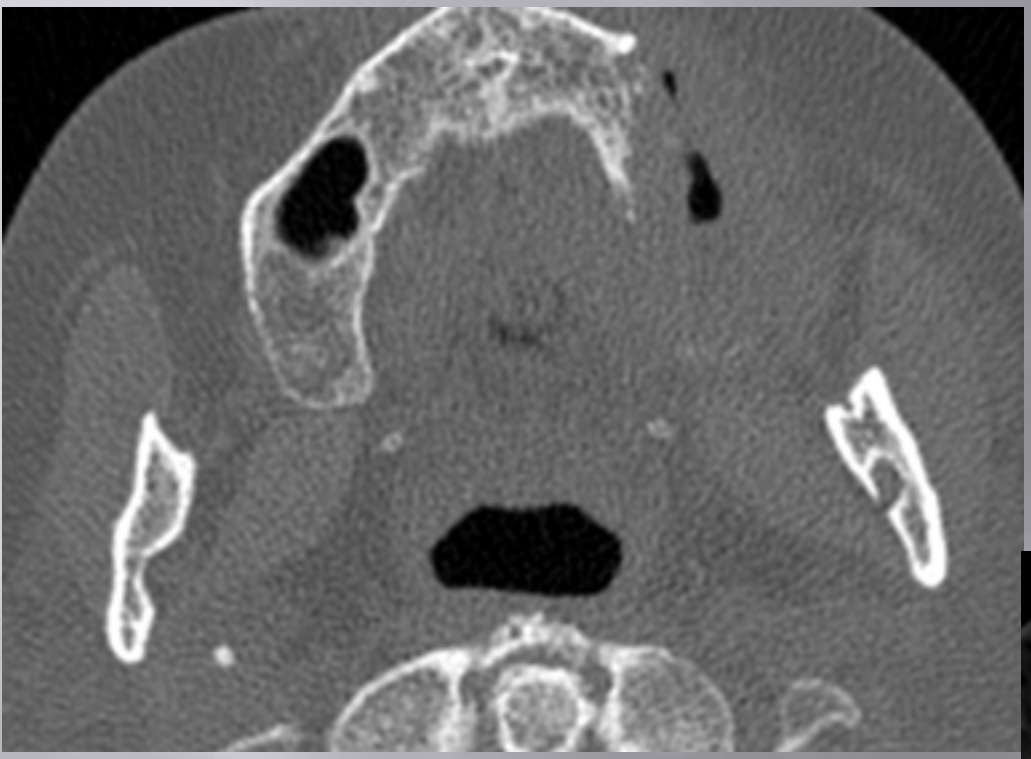


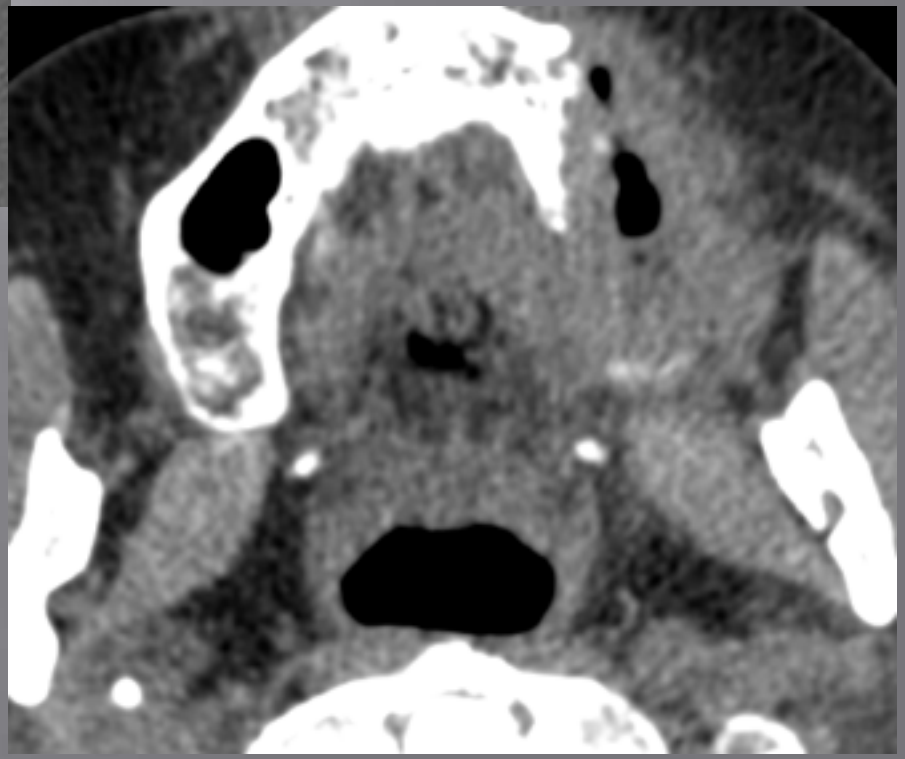
Unilateral sinus disease

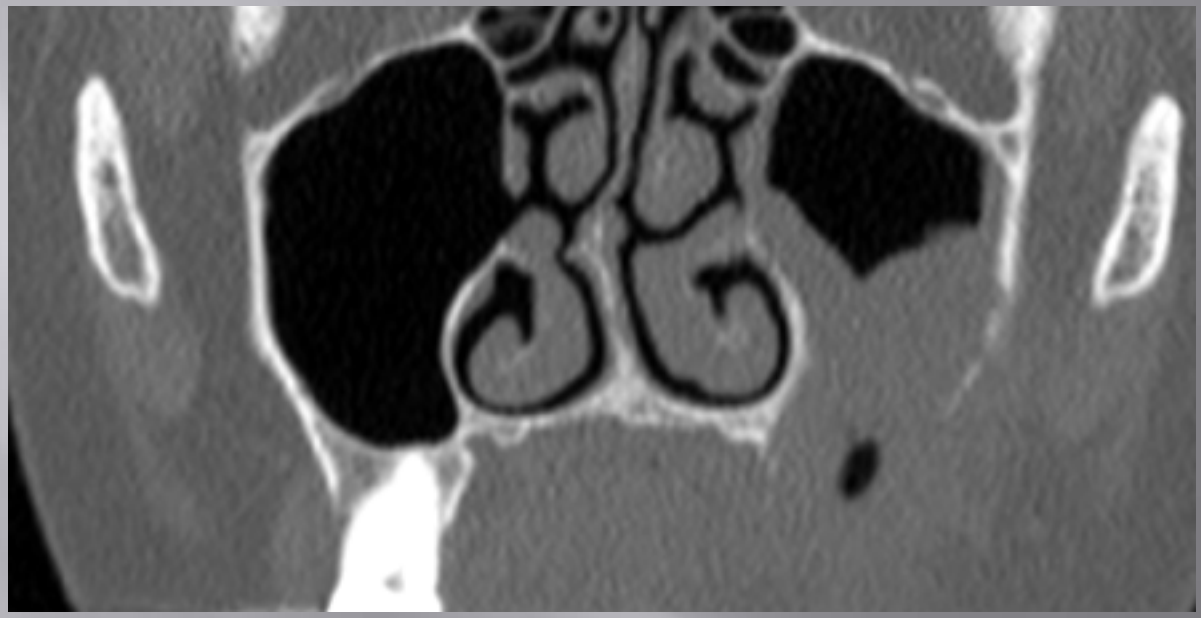


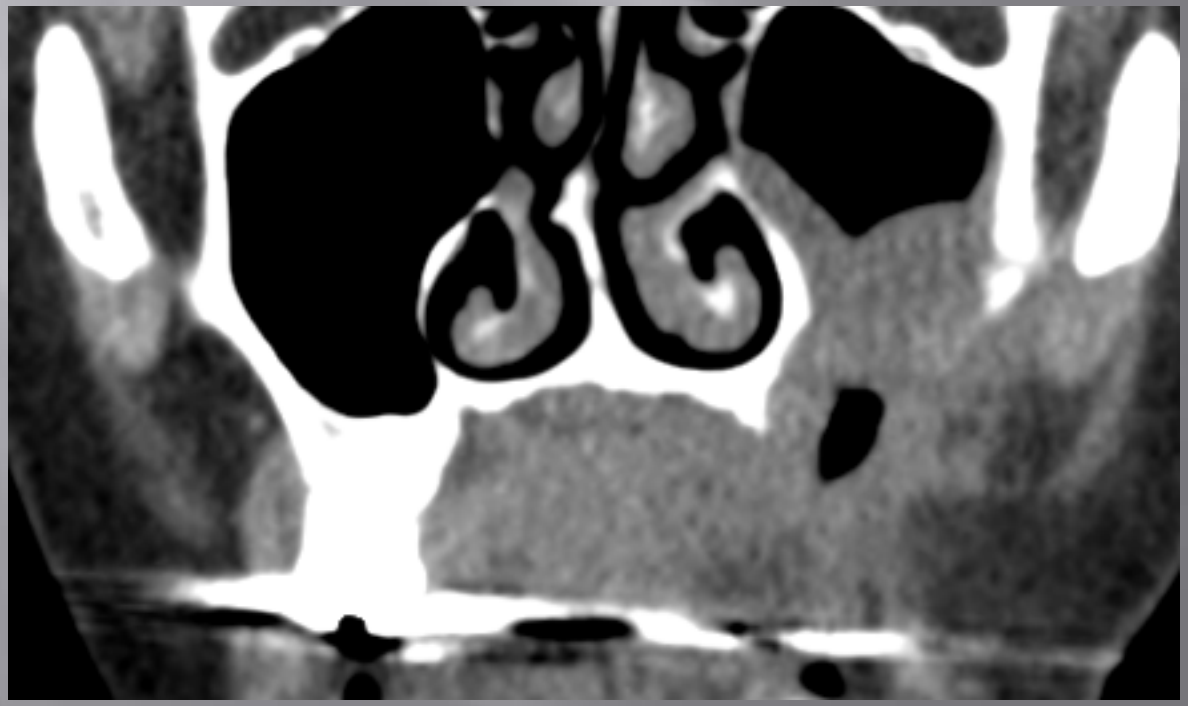
Severe pain and loose tooth ULQ, suspected malignancy. Erythematous and sloughing in upper left buccal sulcus and palate.



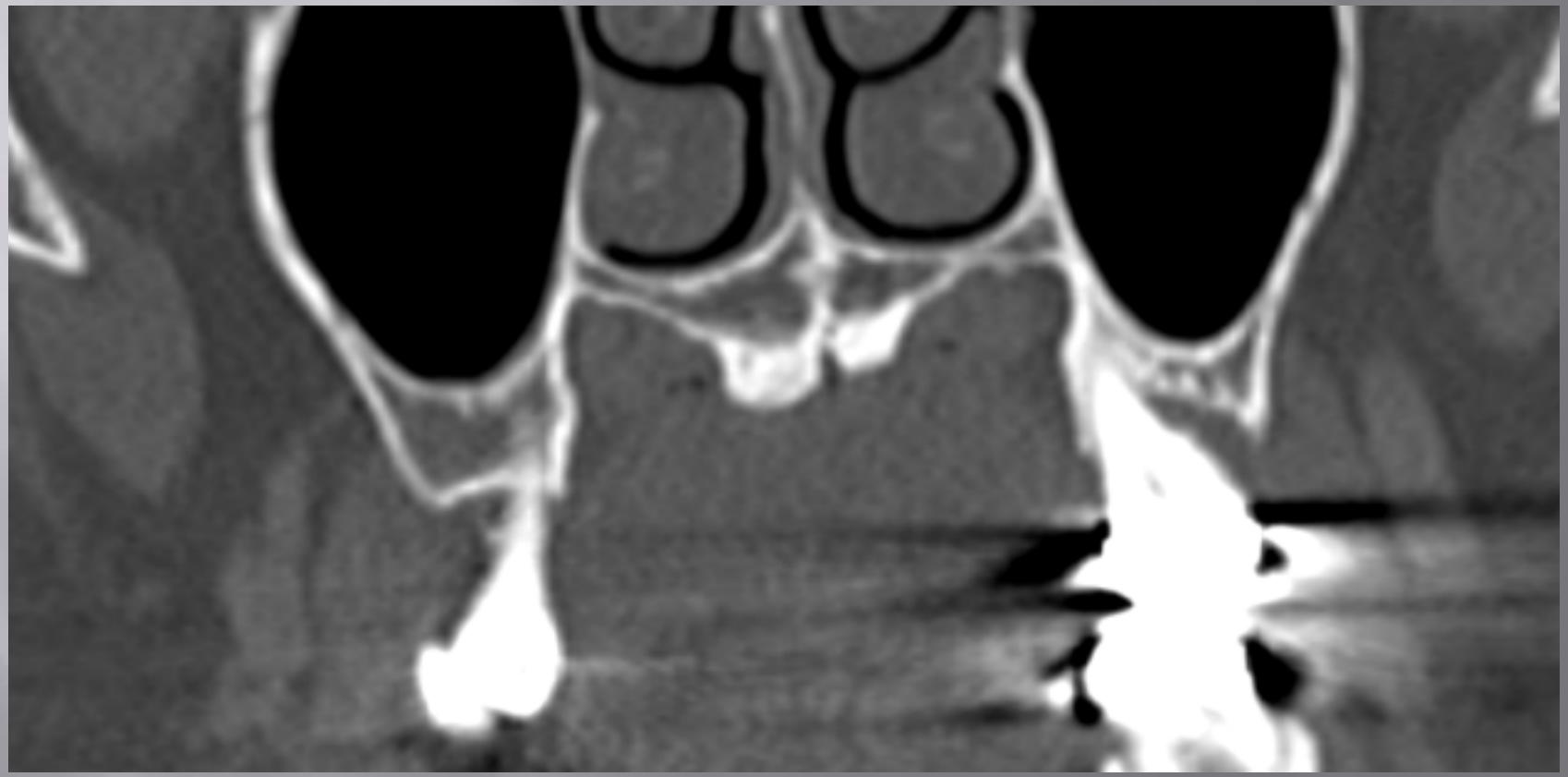




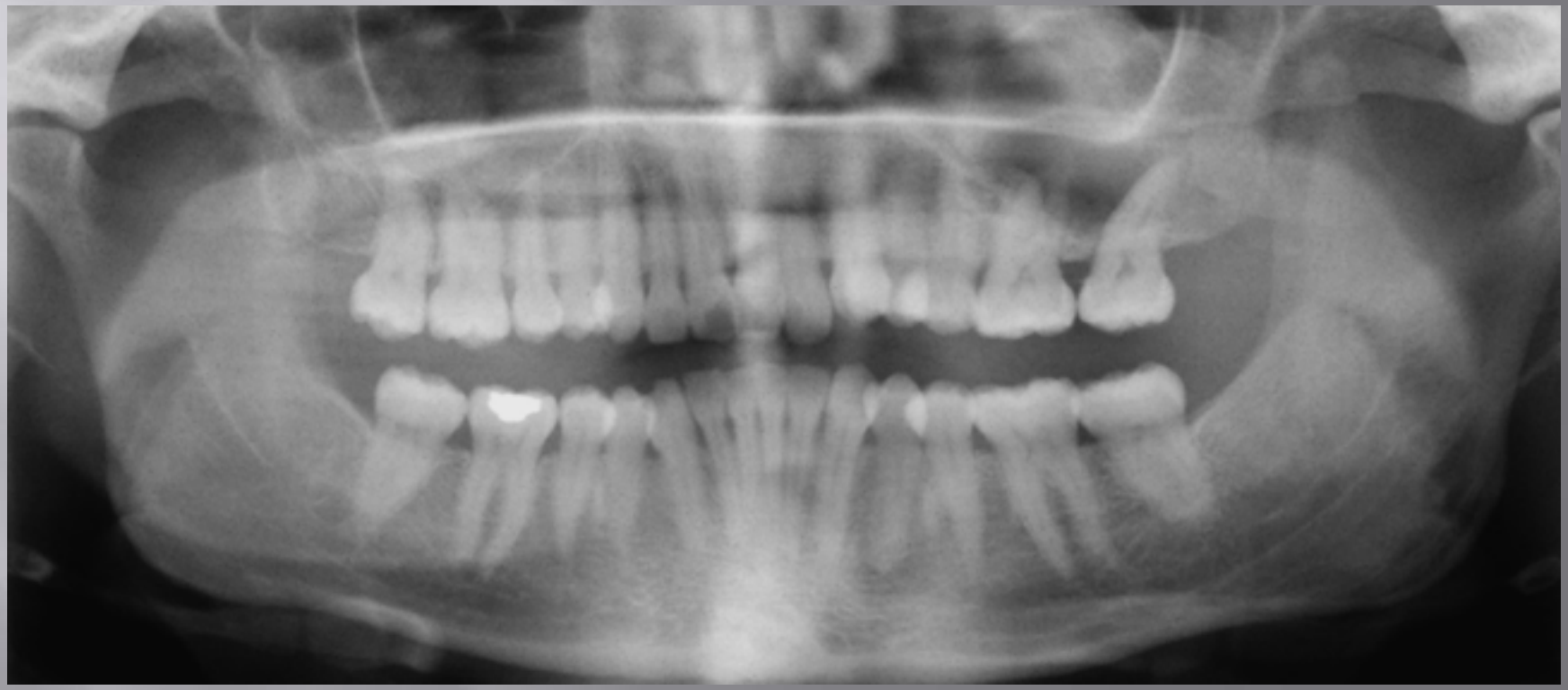


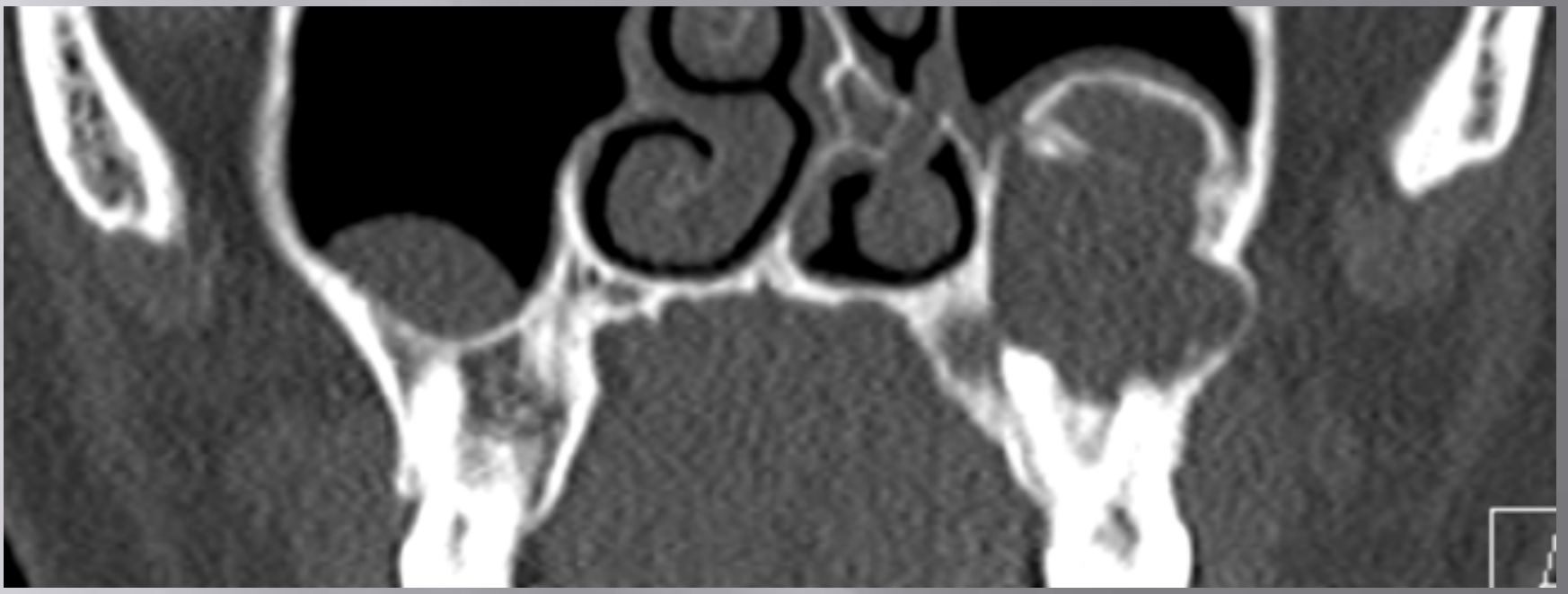


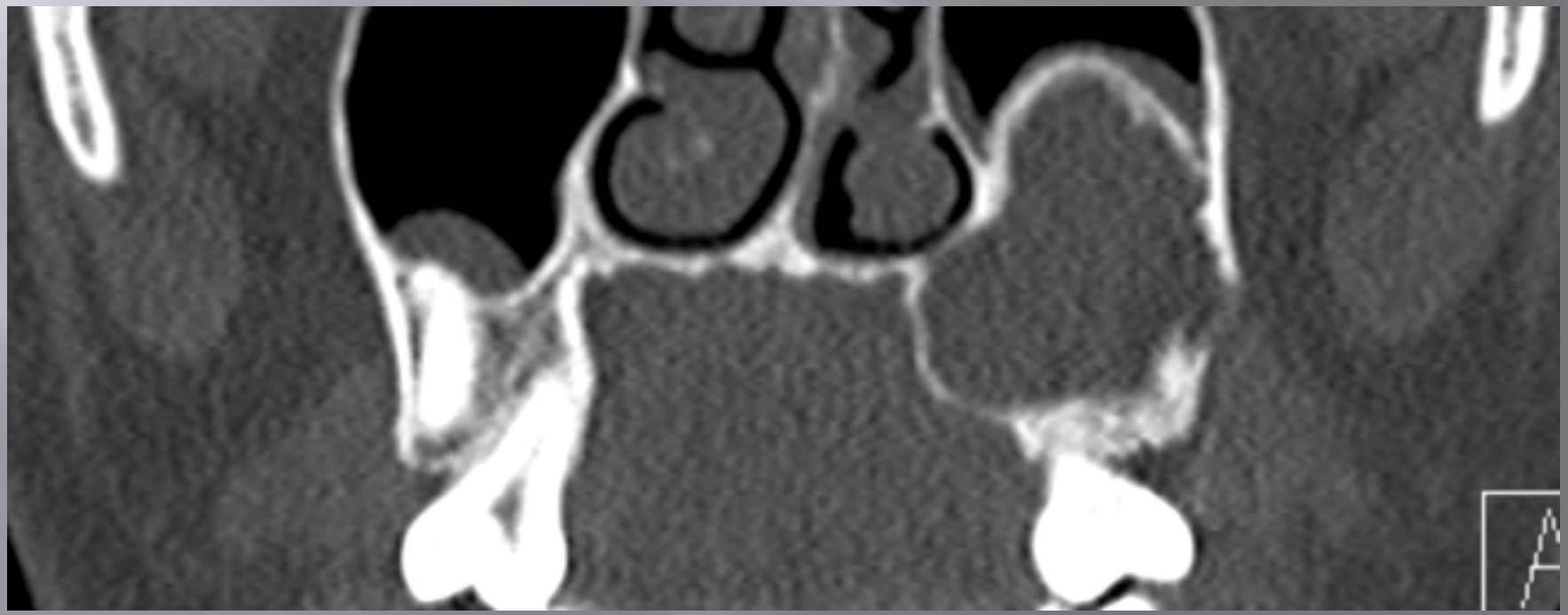
66yr female with lump hard palate. 2wk Rapid access referral by GP. NEOPLASTIC LESION PALATE?



Patient with a history of palatal swelling.



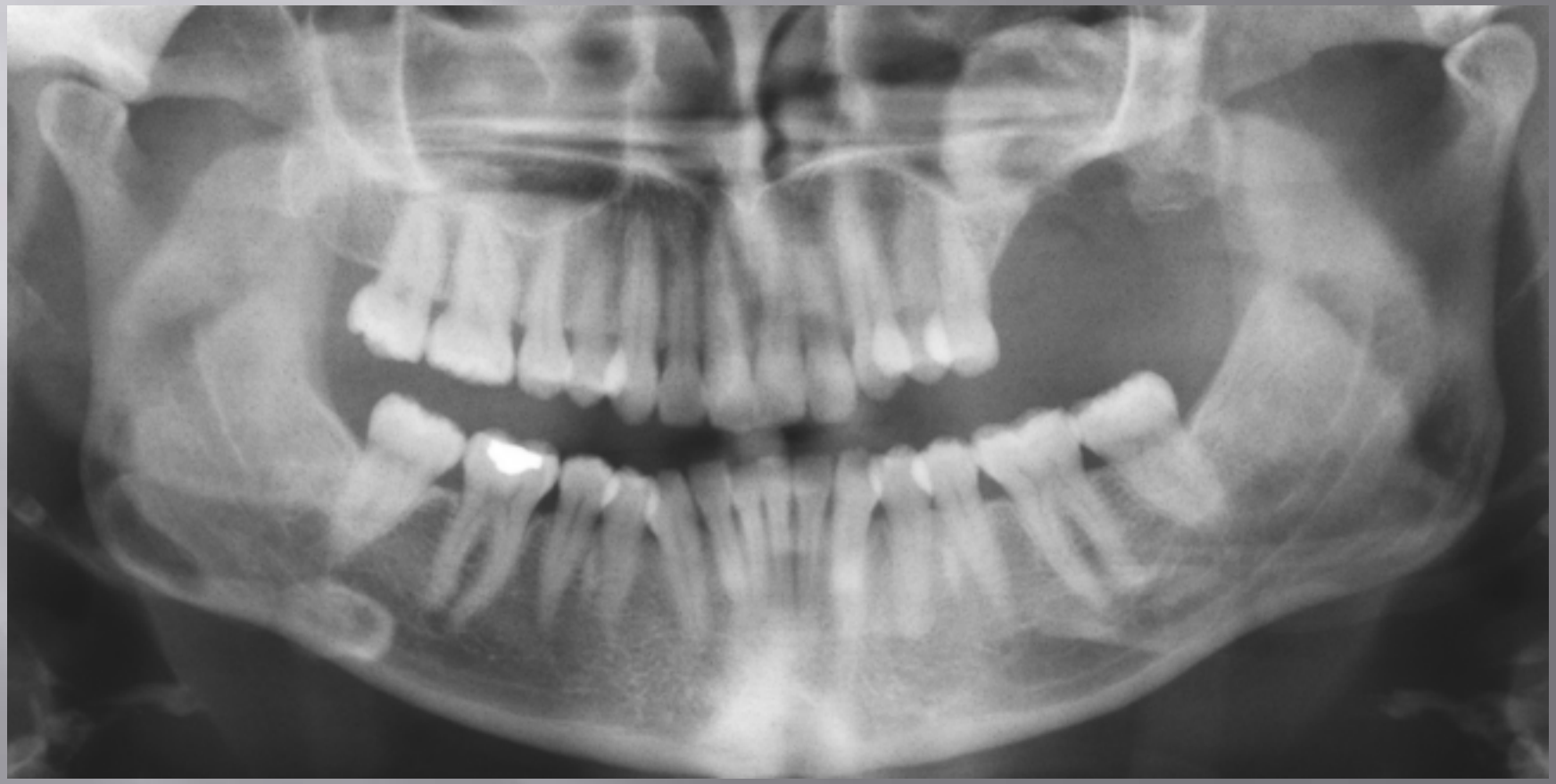




Radicular cyst

- Most common odontogenic cyst
- arise from epithelial cell rests of the periodontal ligament, which are stimulated by inflammatory products e.g. from an abscess
- Most are asymptomatic
- Typically associated with a non vital tooth
- Unilocular periapical lesion with well-defined, sclerotic borders in close vicinity of the apical portion of the root of a non-vital tooth

Post operative



Objectives

- Pathology
- Terminology