

Inter-radicular Radiolucencies

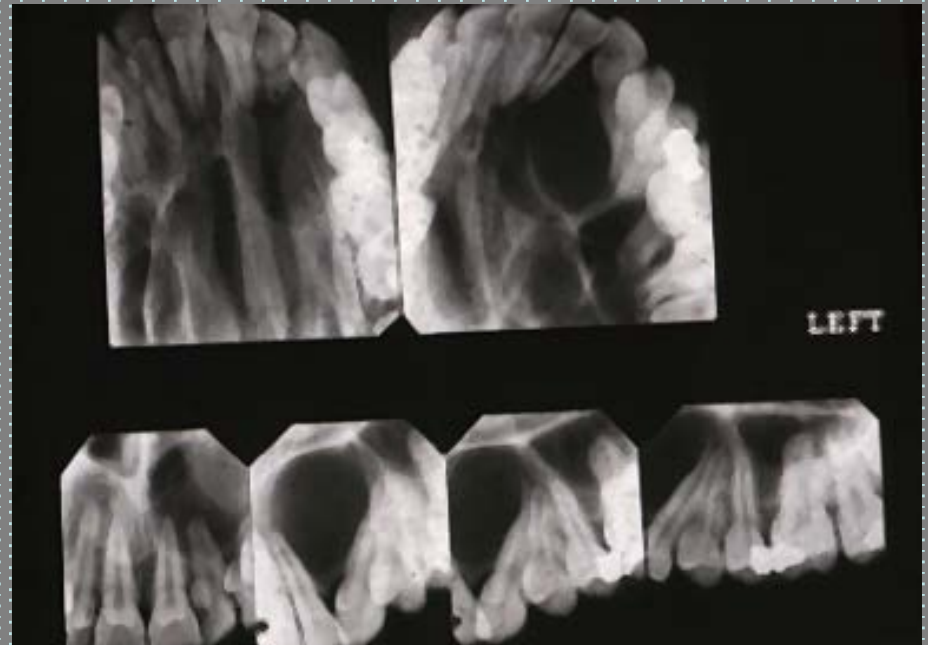
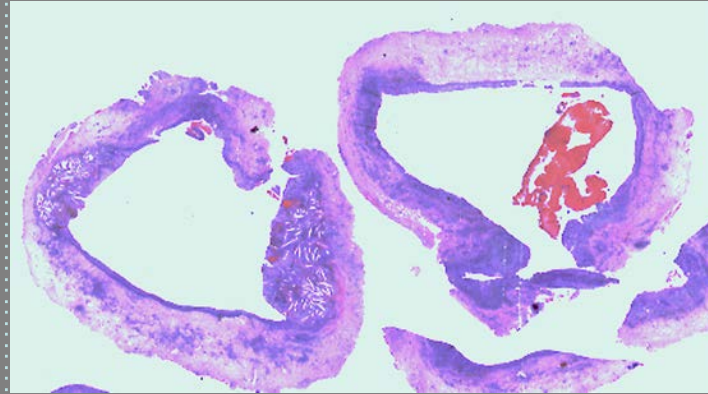
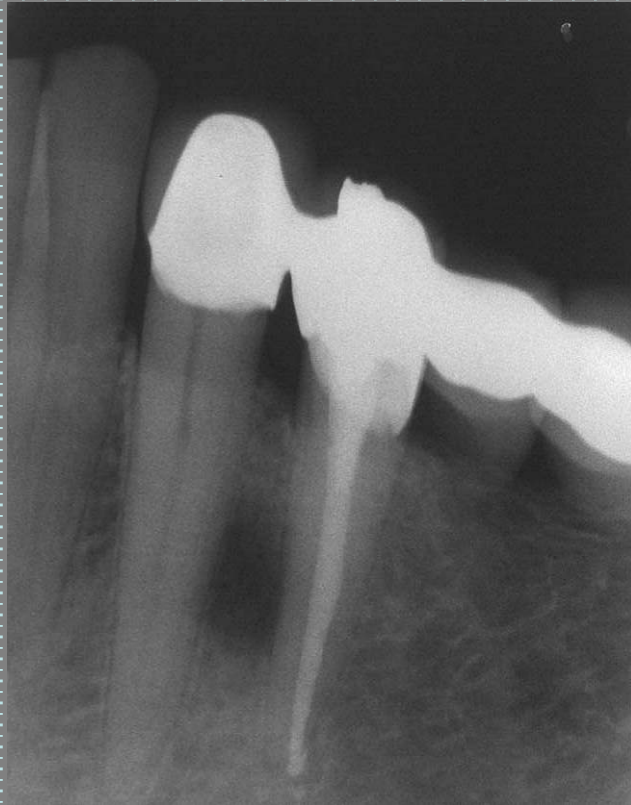
Differential Diagnosis

- Laterally Displaced Radicular Cyst
 - Accessory canals
 - Root fracture
- Lateral Periodontal Cyst
 - Botryoid variant
- Odontogenic Keratocyst
- Incisive Canal Cyst
- Squamous Odontogenic Tumor
- Adenomatoid Odontogenic Tumor
- Odontogenic Fibroma
- Calcifying Epithelial Odontogenic Cyst

Radicular Cyst

- Endodontic infection, nonvital tooth
- Radiolucency lateralized
- Accessory canal, root fracture
- Tx: Endodontic therapy vrs. extraction

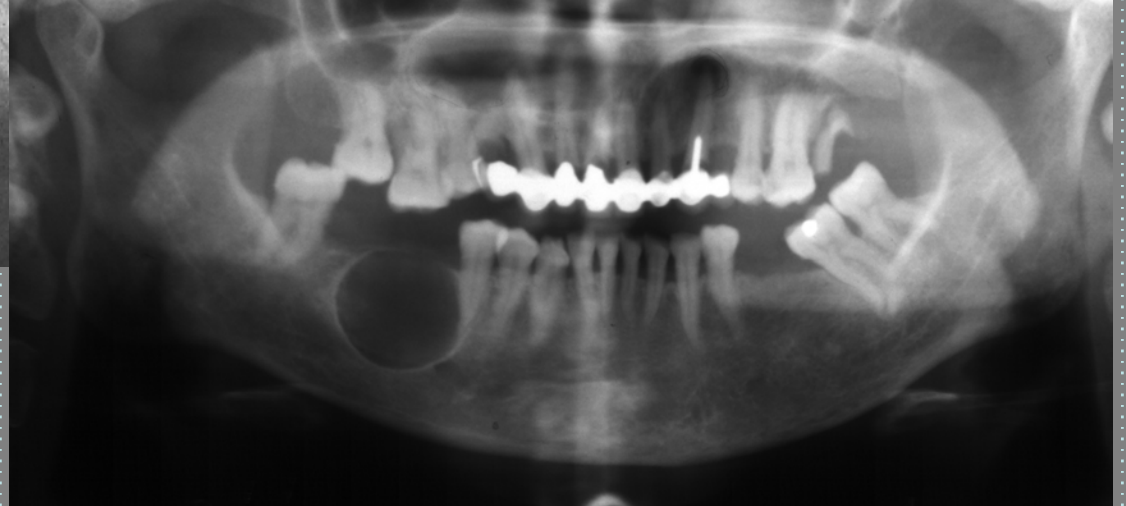
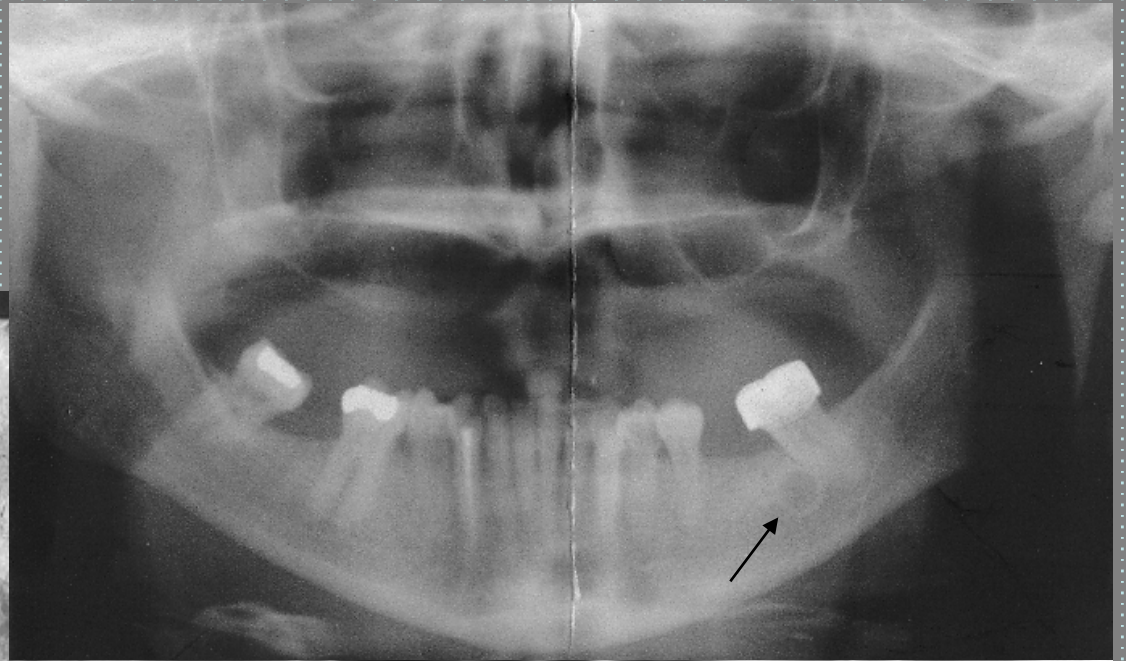
Lateral Radicular Cyst



Residual Radicular Cyst

- An apical periodontal cyst that persisted after the incriminated tooth was extracted
- Located in an edentulous space
- Typically unilocular corticated radiolucency
- SSE lining, often hyperplastic with inflammation in the cyst wall
- Tx: Enucleation/curettage

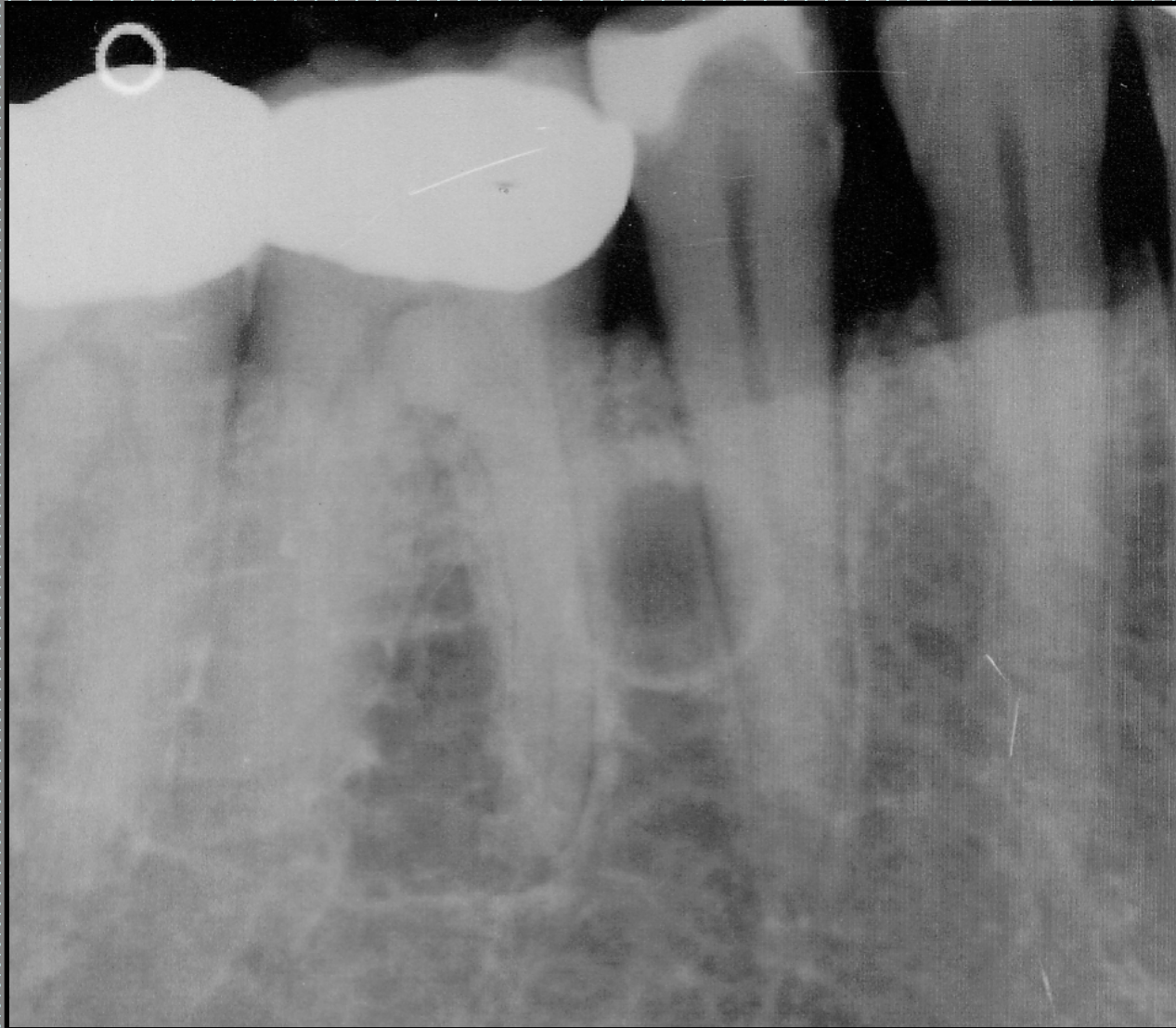
Residual Radicular Cyst



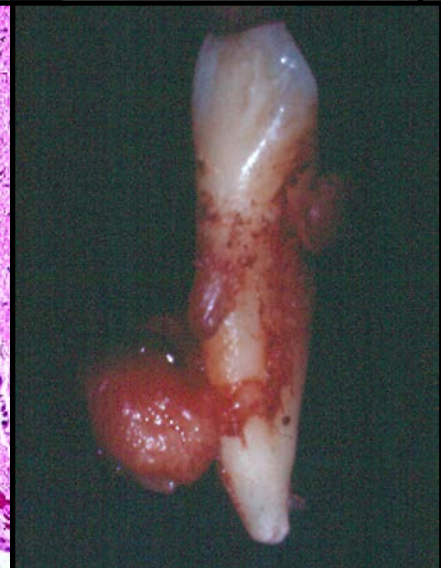
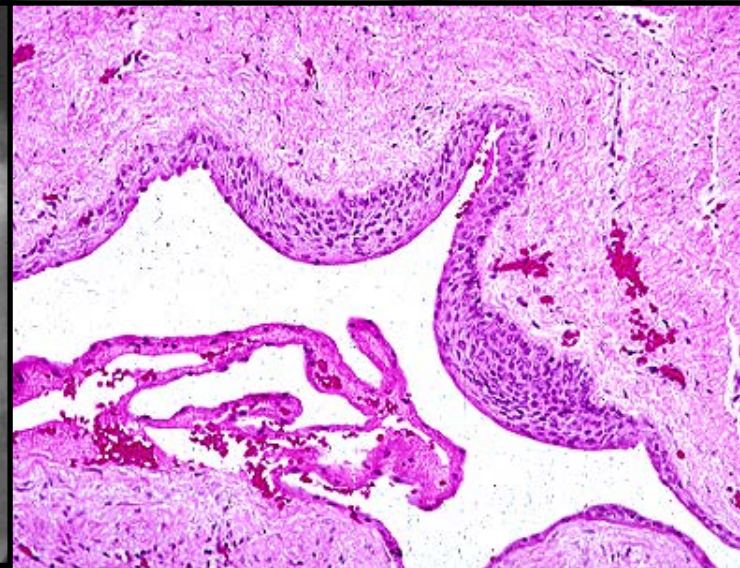
Lateral Periodontal Cyst

- Developmental odontogenic cyst arising from the rests of Malassez in the lateral periodontal ligament
- Typically located in the mandibular premolar-cuspid region
- Contiguous teeth are vital
- Microscopic: characteristic lining of attenuated SSE with focal acanthotic nodules containing keratinocytes arranged in a swirled pattern
- Tx: Enucleation

Lateral Periodontal Cyst



Lateral Periodontal Cyst



Lateral Periodontal Cyst, Botryoid Type

- A subtype of LPC that is multilobular, grape-like, botryoid
- May appear uni- or multilocular radiographically, yet at surgery, the lobulated gross appearance is seen in either case
- Adult onset
- Microscopic is the same as LPC with a tortuous, multilocular pattern
- Tx: Enucleation/curettage

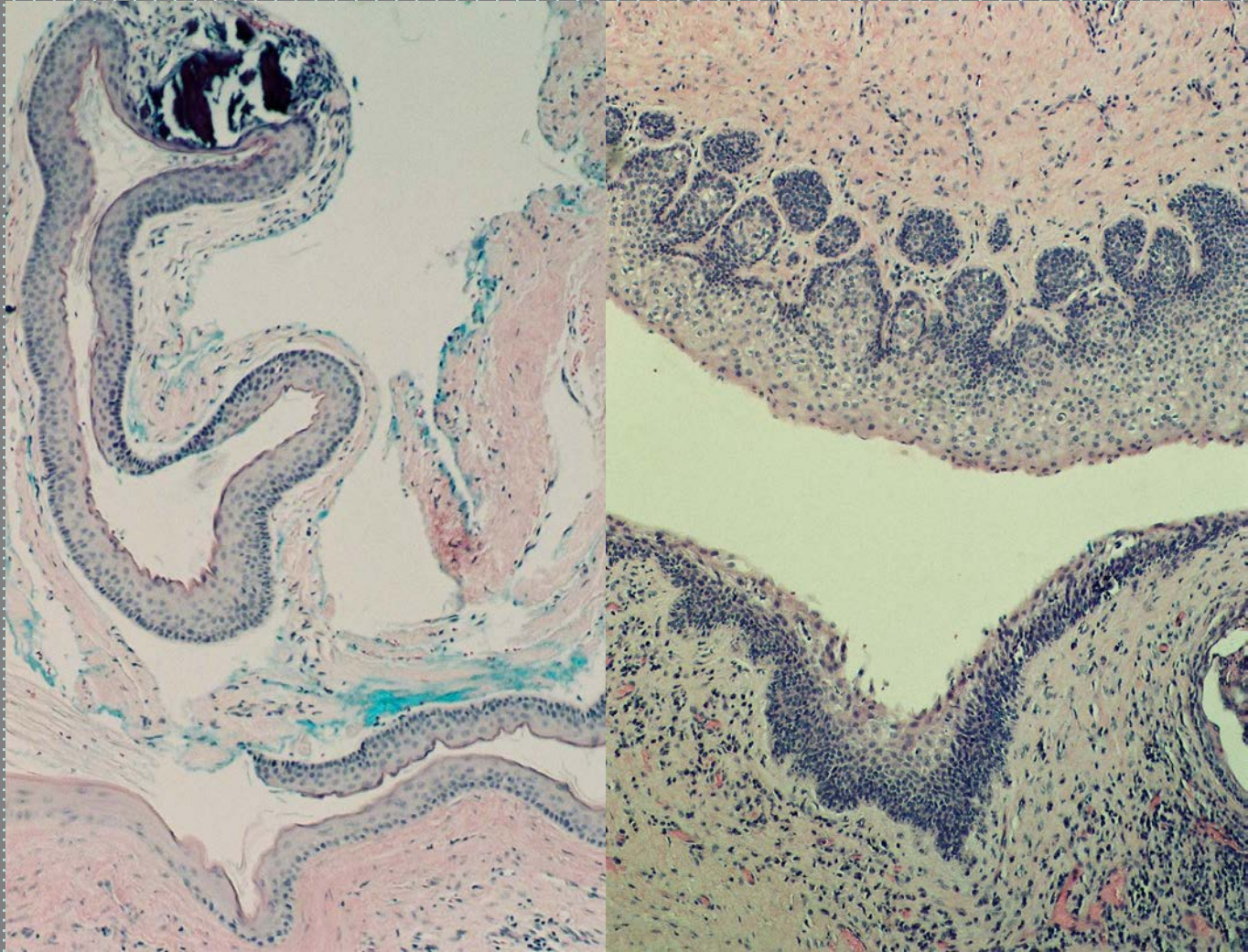
Botryoid Odontogenic Cyst



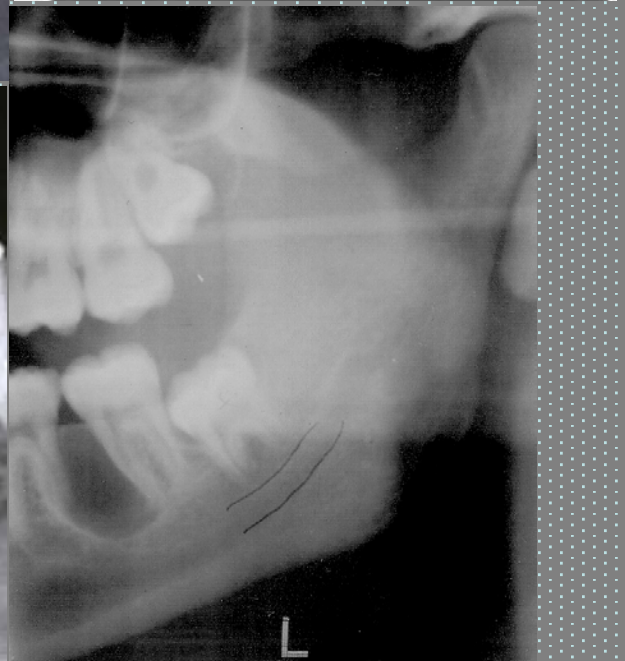
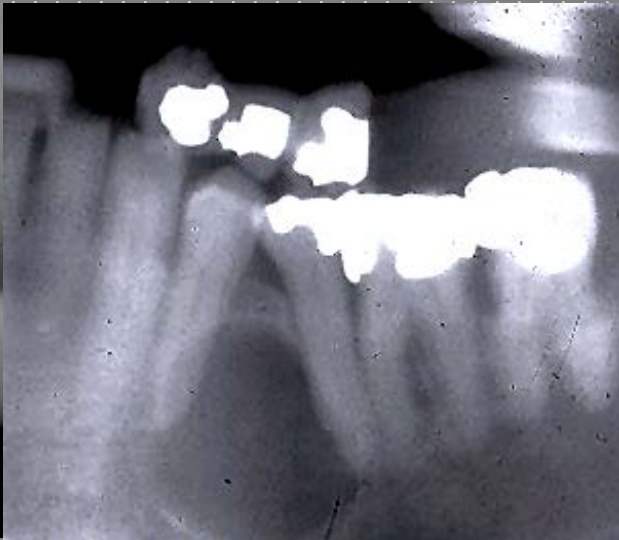
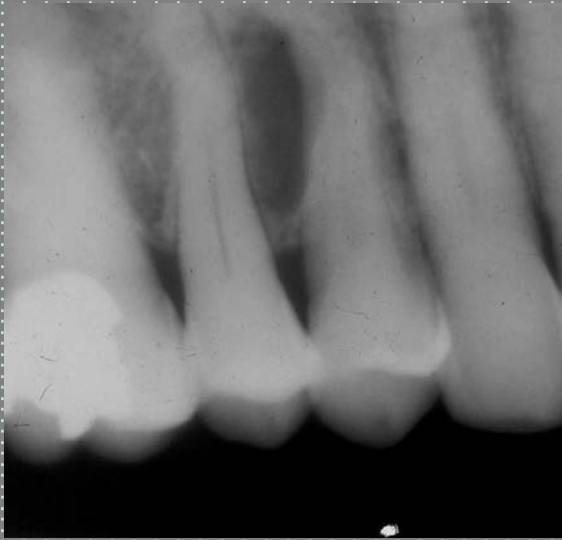
Odontogenic Keratocyst

- A developmental odontogenic cyst that has significant growth potential (a quasi neoplasm)
- Lesional tissue has a homozygous mutation or deletion in the Patched gene (a tumor suppressor gene in the sonic hedgehog growth pathway)
- Many OKCs evolve inter-radicularly as a well circumscribed unilocular radiolucency
- Root divergence is common
- Unique epithelial lining of parakeratinizing SSE, thin spinous layer, polarized basal layer
- Rule out the Gorlin Syndrome
- Tx: Enucleation/Curettage, close surveillance for recurrence.

Odontogenic Keratocyst



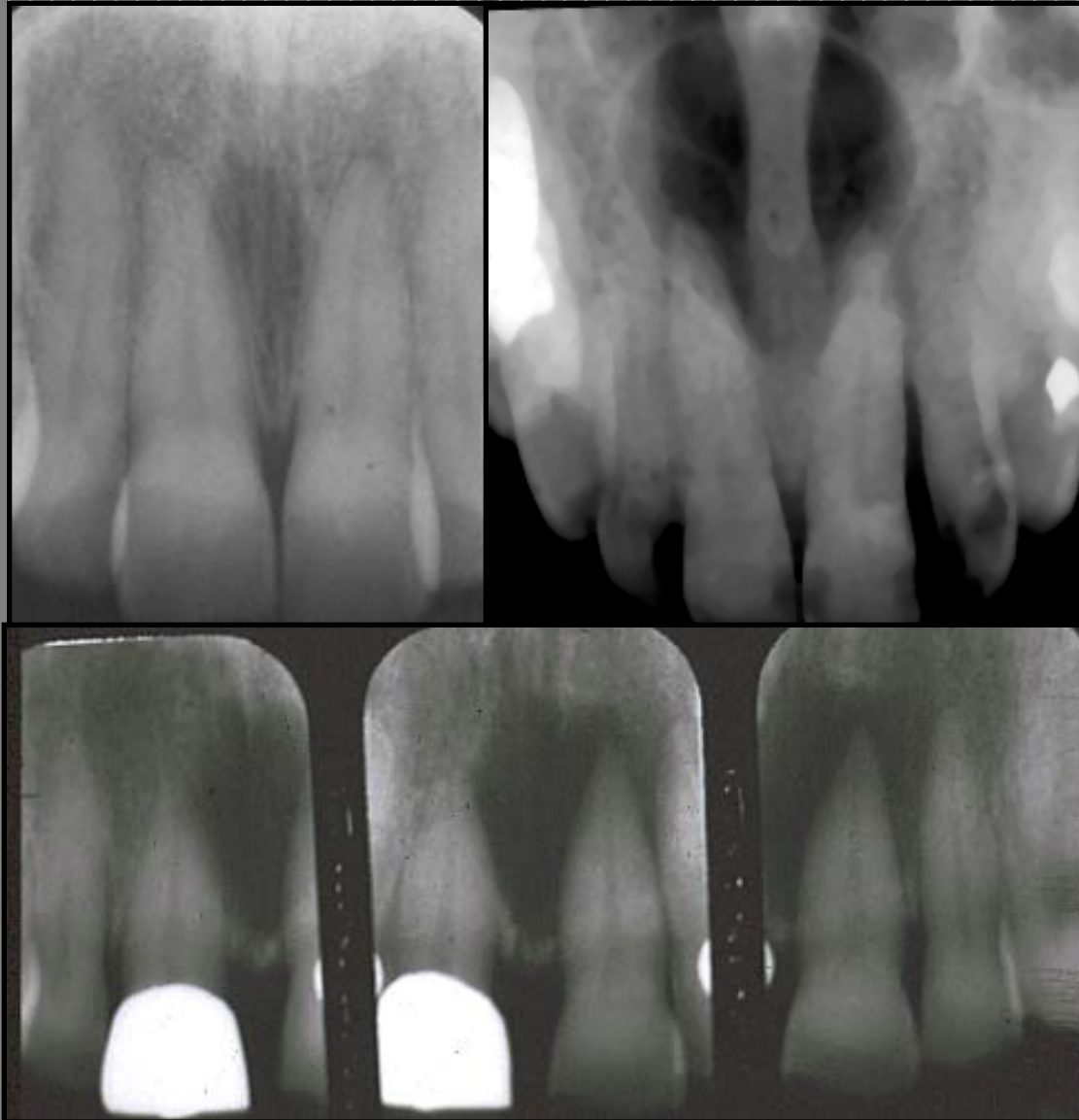
Odontogenic Keratocyst



Incisive Canal Cyst

- A developmental nonodontogenic cyst that arises from epithelial remnants of the nasopalatine (incisive) canal
- Adult onset
- Well delineated inverted pear shaped radiolucency interposed between the apices of teeth numbers 8 and 9
- Root divergence common
- Teeth are vital
- Microscopic: SSE and respiratory epithelium with neurovascular bundle in cyst wall
- Simple enucleation

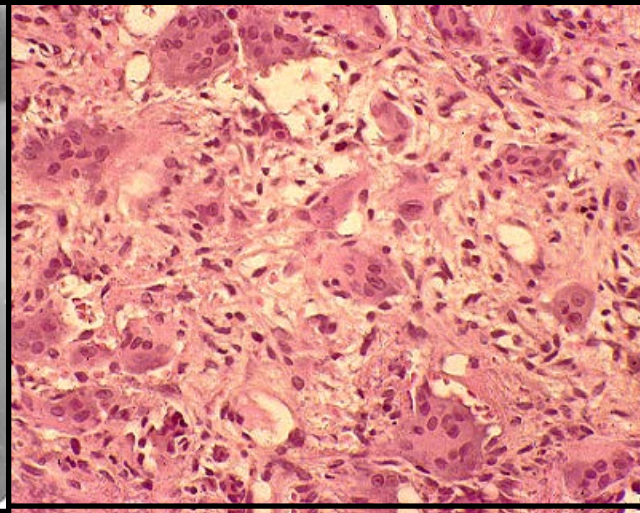
Incisive Canal Cyst



Central Giant Cell Granuloma

- Young adults, midlife
- Anterior aspect of jaws
- Mand>Max
- Root Divergence
- Root Resorption
- Rule out Brown Tumor of Hyperparathyroidism
- Tx: Curettage, steroid injection

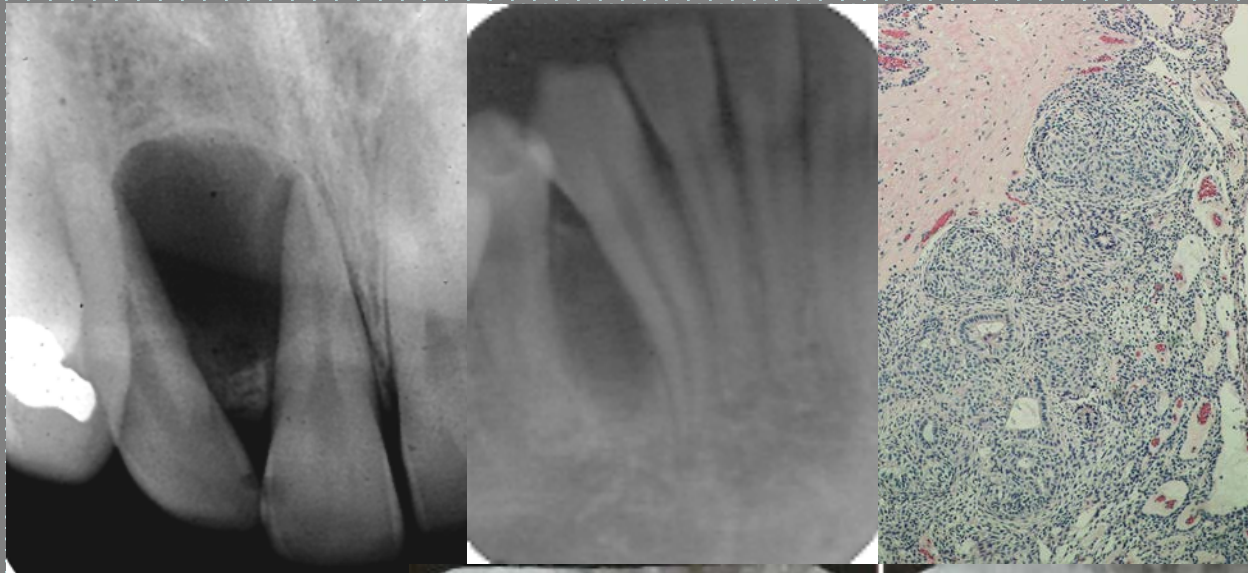
Central Giant Cell Granuloma



Odontogenic Adenomatoid Tumor

- Epithelial odontogenic tumor with “duct-like” structures hence the term “adenomatoid”
- Teens
- Females
- Anterior jaws
- Maxilla > mandible
- Well circumscribed radiolucency, root divergence, may have opaque flecks
- Tx: Enucleation, curettage, no tendency for recurrence

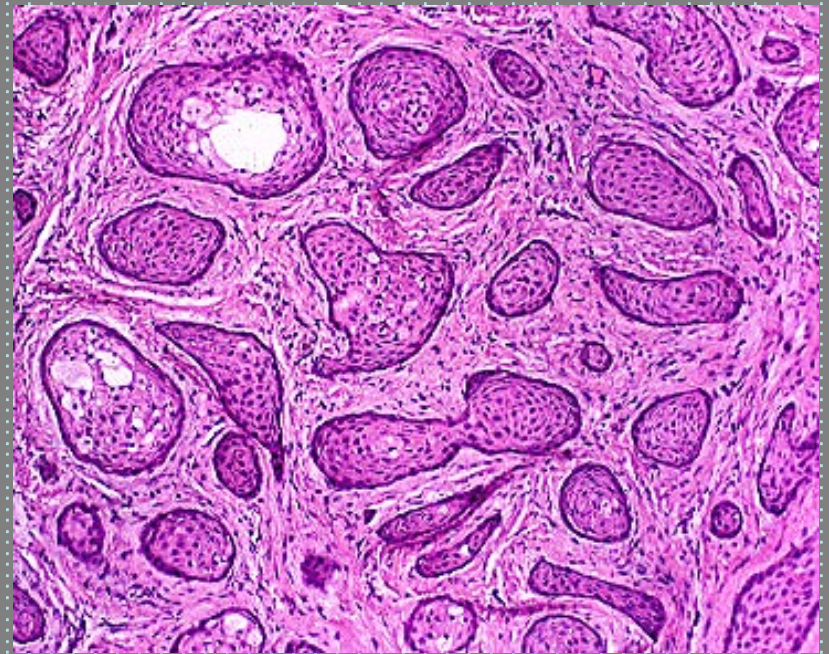
Adenomatoid Odontogenic Tumor



Squamous Odontogenic Tumor

- A benign epithelial odontogenic tumor comprised of oval islands of squamous epithelium showing no ameloblastic features
- Well circumscribed radiolucency
- A familial form with multifocal lesions may be seen
- Root divergence is common
- Tx: Enucleation/curettag

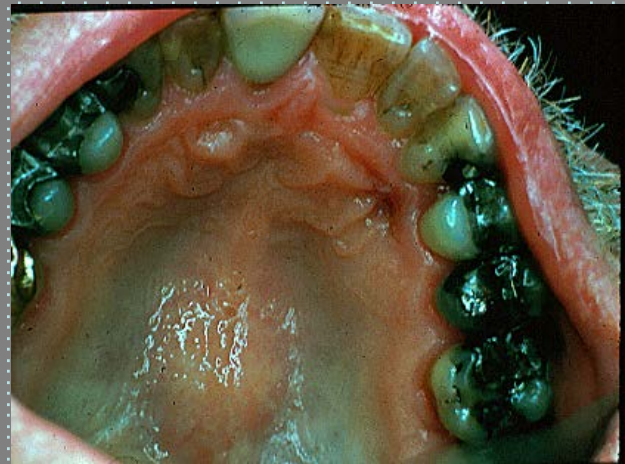
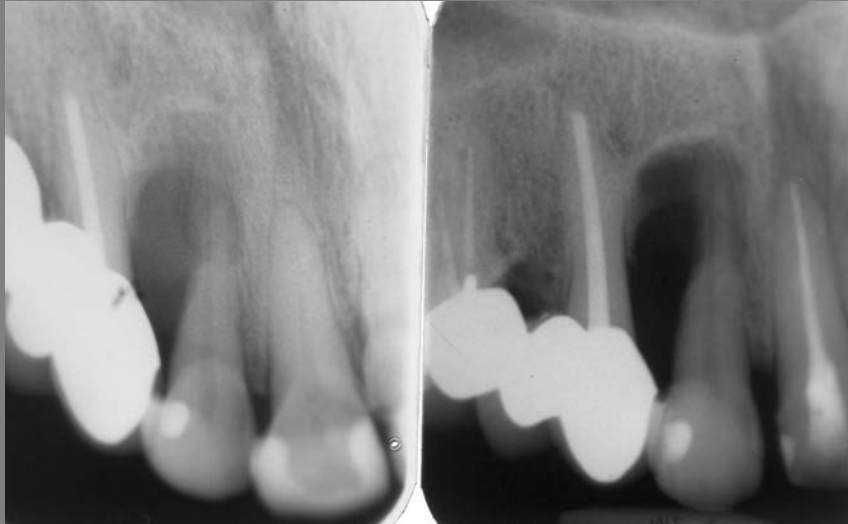
Squamous Odontogenic Tumor



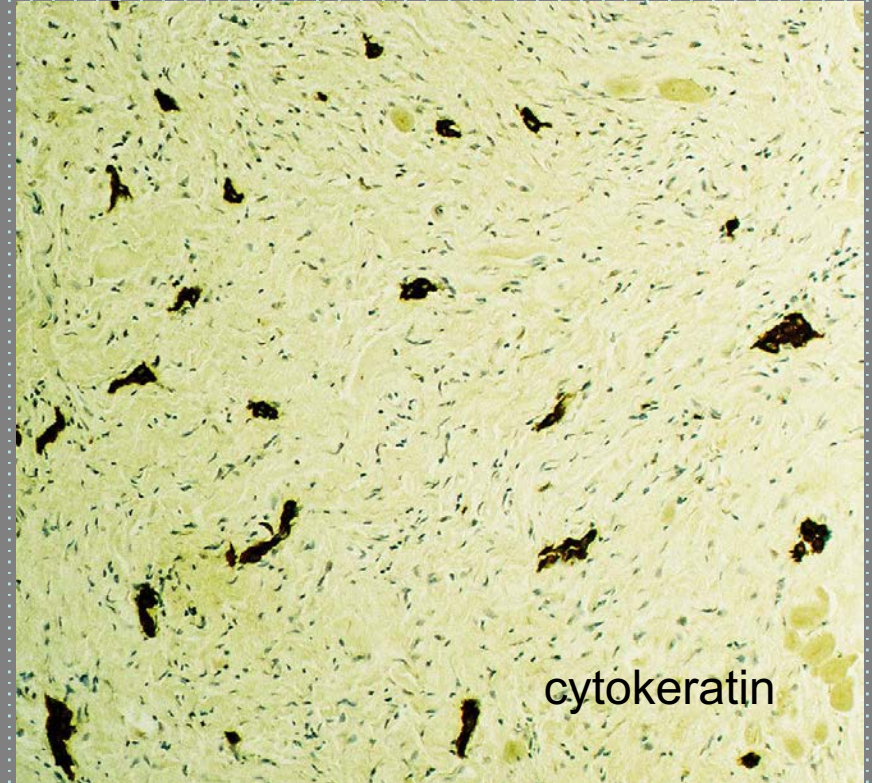
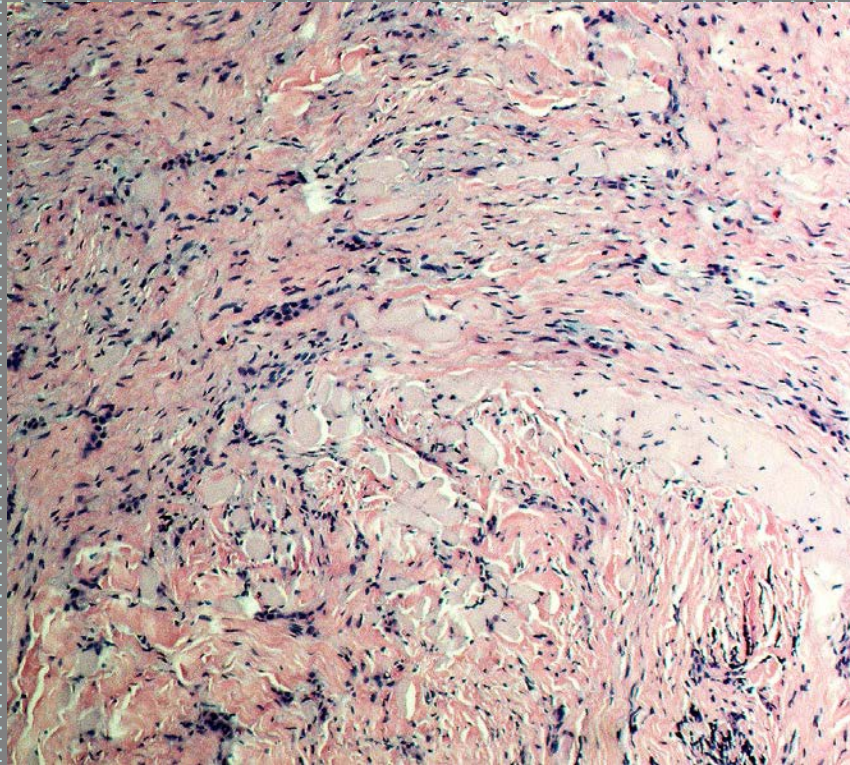
Odontogenic Fibroma

- A rare odontogenic tumor comprised of mature collagenous connective tissue and small oval and linear odontogenic epithelial rests
- Adult Onset
- Predominantly Maxilla; may be peripheral
- Can coexist with central giant cell granuloma
- Unilocular interradicular lucency
- Often, the palate shows “dimpling”
- Tx: Enucleation, curettage

Odontogenic Fibroma



Odontogenic Fibroma



Calcifying Epithelial Odontogenic Cyst

- An odontogenic cyst that may arise from any odontogenic epithelial remnant, including rests of Malassez in the PDL
- The solid variant is termed **Odontogenic Ghost Cell Tumor**
- Typically found in the premolar-cuspid region of the mandible
- Microscopic: Ameloblastic epithelium with stellate reticulum and individually keratinized Ghost cells. Induction of dentin formation in the fibrous wall
- Radiolucency that may contain small calcified flecks
- Tx: Enucleation/curettage

Calcifying Epithelial Odontogenic Cyst

