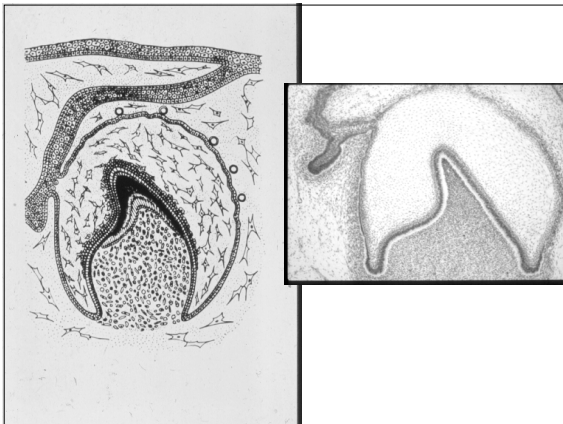


Origin of Odontogenic Cysts & Tumors

Odontogenic Apparatus

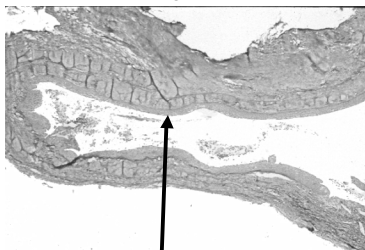


Origin of Odontogenic Cysts & Tumors

Odontogenic Apparatus

- Remnants of dental lamina
- Reduced enamel epithelium
- Odontogenic rests
- Basal cell layer of oral mucosa
- Dental papilla (ectomesenchyme)
- Lining of odontogenic cysts

What is a cyst?



An abnormal space within tissue lined by epithelium

Odontogenic Cysts

- Inflammatory
- Developmental

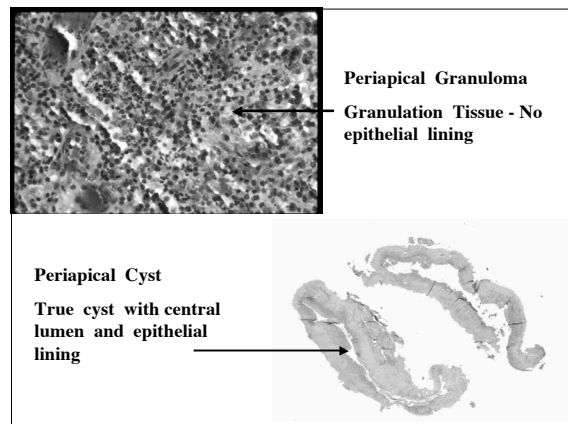
Odontogenic Cysts

- Inflammatory
 - Periapical (radicular) cyst
 - Residual periapical (radicular) cyst
 - Buccal bifurcation cyst (usually first molars)
- Paradental cysts (partially erupted third molars)



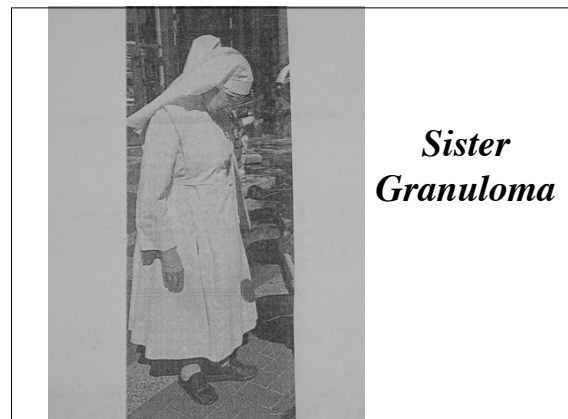
Periapical Cyst vs. Periapical Granuloma

- CANNOT TELL THE DIFFERENCE BY X-RAY
- CAN ONLY TELL BY HISTOLOGY



Periapical Cyst vs. Periapical Granuloma

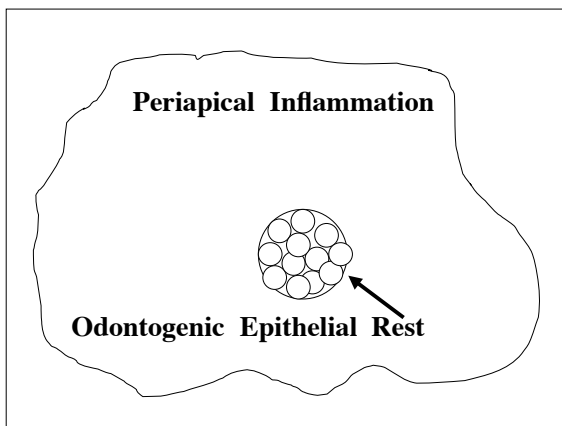
- Differential diagnosis must include both
- DO NOT INCLUDE PERIAPICAL ABSCESS
(Rohrer disagrees with the text)



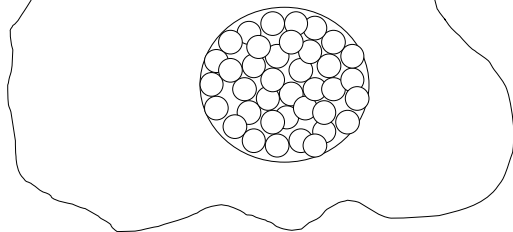


Why does a periapical cyst form instead of just a granuloma?

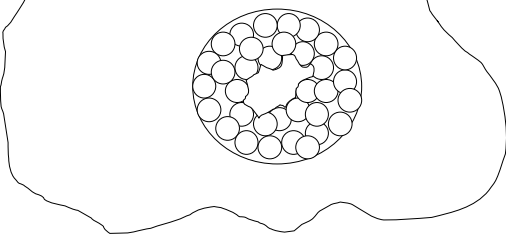
Simply the chance of Rests of Malassez being in the area of inflammation



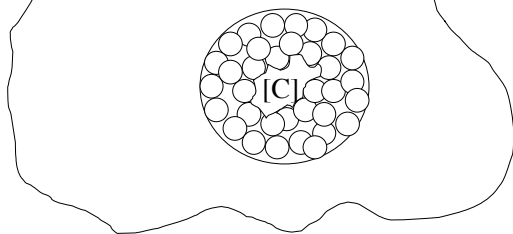
1. Cells in the rest proliferate due to the inflammation



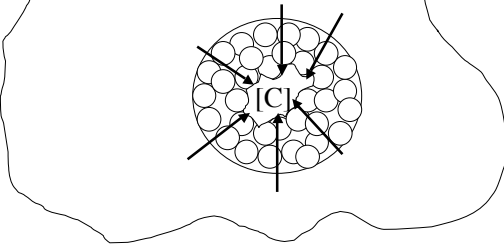
2. The ball of cells gets so big the center gets too far from the blood supply, the cells in the center die



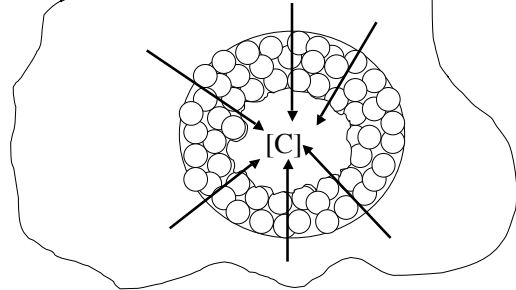
3. The center of the ball of cells then has a higher protein concentration than the surrounding tissue



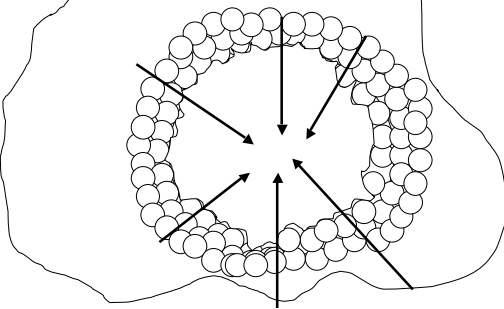
4. Fluid flows into the center by osmotic pressure, cyst expands, more cells grow around the periphery, more cells in the center die, concentration increases again



5. Osmotic pressure can keep expanding the cyst independent of the inflammation



Result = Periapical Cyst



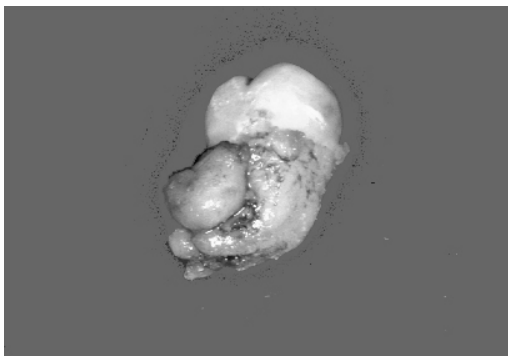
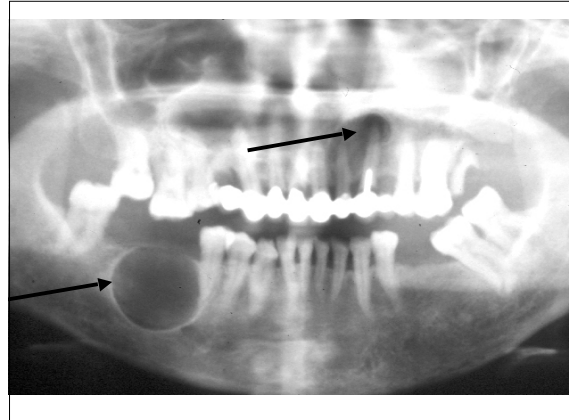
A radiolucency in the jaws must be investigated

If the teeth in the area are vital, you must biopsy the radiolucent area.

If non-vital, obviously RCT

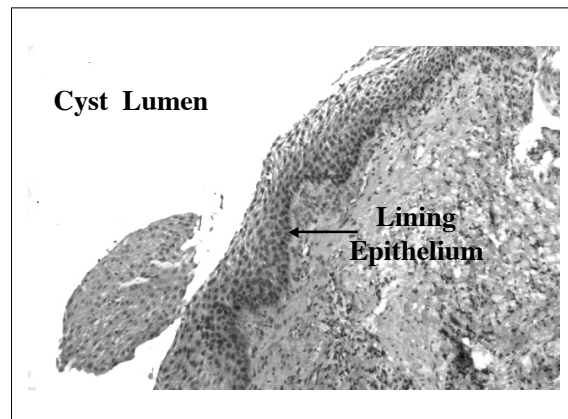
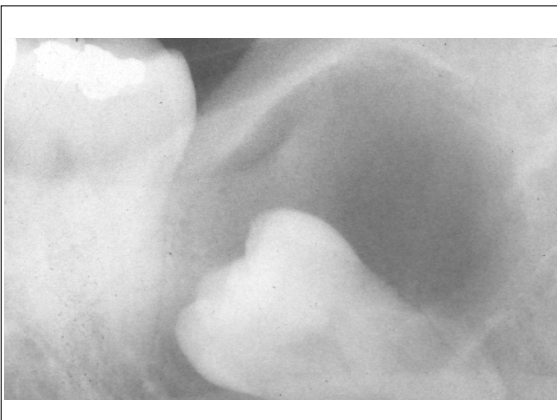


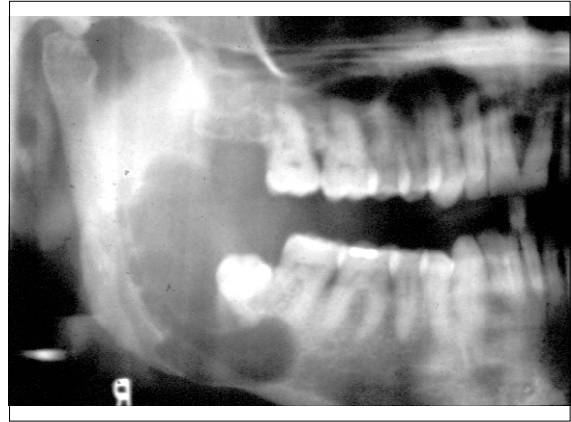
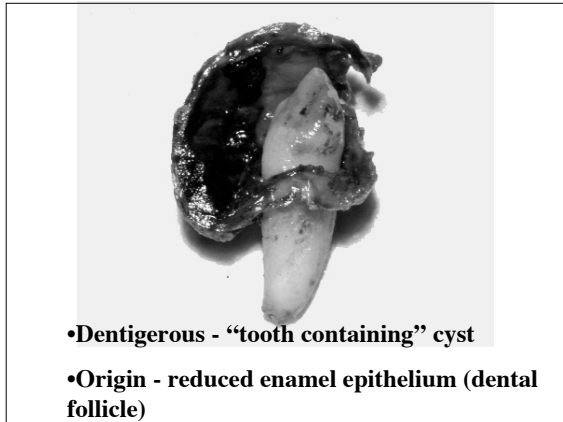
Vitality Test!
Vitality Test!
Vitality Test!
Vitality Test!
Vitality Test!



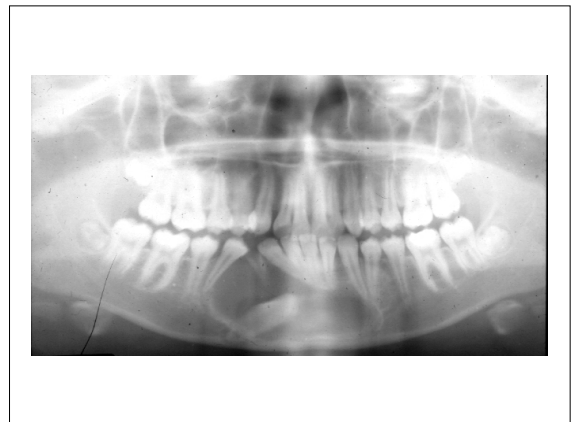
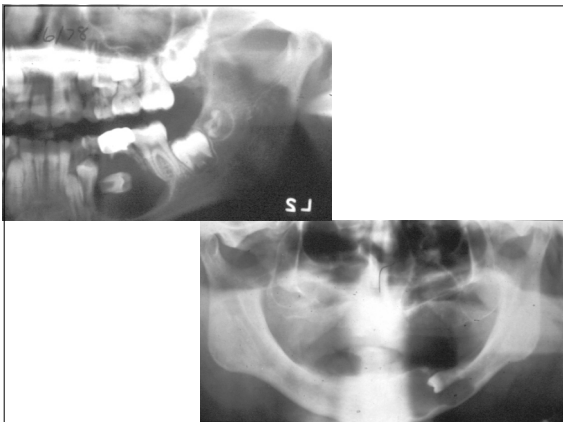
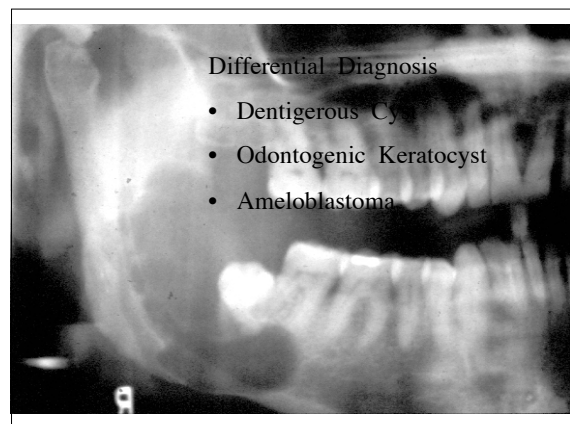
Odontogenic Cysts

- Developmental
 - Dentigerous cyst
 - Odontogenic keratocyst
 - Orthokeratinized odontogenic cyst
 - Gingival (alveolar) cyst of the newborn
 - Gingival cyst of the adult
 - Lateral periodontal cyst
 - Calcifying odontogenic (Gorlin) cyst
 - Glandular odontogenic cyst
 - Eruption cyst





**If a radiolucency is
 ASSOCIATED
 with an unerupted tooth
 Dentigerous cyst should be
 your FIRST differential
 diagnosis**



Odontogenic Keratocyst

**Because of its behavior,
many oral pathologists
now consider the OKC
an odontogenic tumor
that has a cystic form**

**2005 Classification by the
W.H.O.**

Keratinocystic Odontogenic Tumor

Odontogenic Keratocyst (Keratinocystic Odontogenic Tumor)

**Three important things associated with
this diagnosis:**

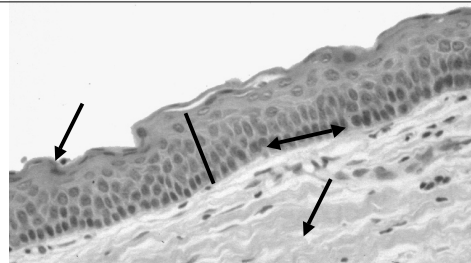
- 1. High recurrence rate (up to 60%)**
- 2. Highly aggressive (now considered by
W.H.O. to be an odontogenic tumor)**
- 3. Relation to Gorlin syndrome**

Odontogenic Keratocyst

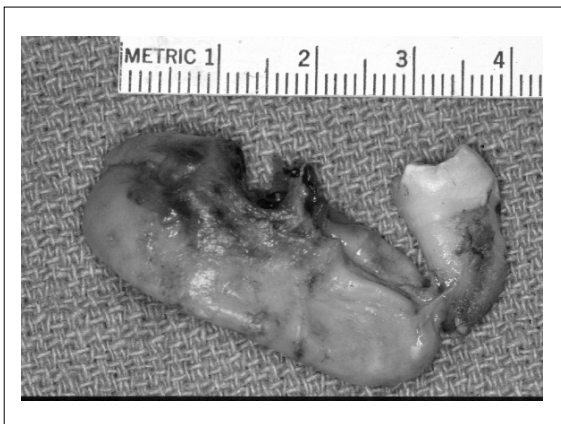
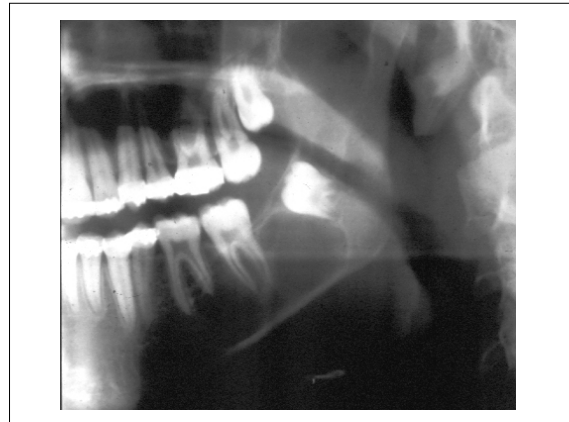
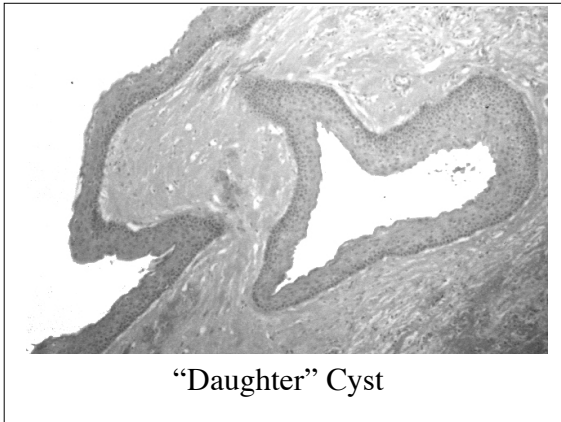
- Can be in the location of
any odontogenic cyst**
- Can be isolated in the
jaws**

Odontogenic Keratocyst

**Diagnosis entirely depends
on the histology of the
cyst lining**



- 1. Uniform (5-8 cells) thickness**
- 2. Hyperchromatic, cuboidal or columnar basal cell layer**
- 3. Corrugated parakeratin layer**
- 4. Virtually no inflammation in cyst wall**

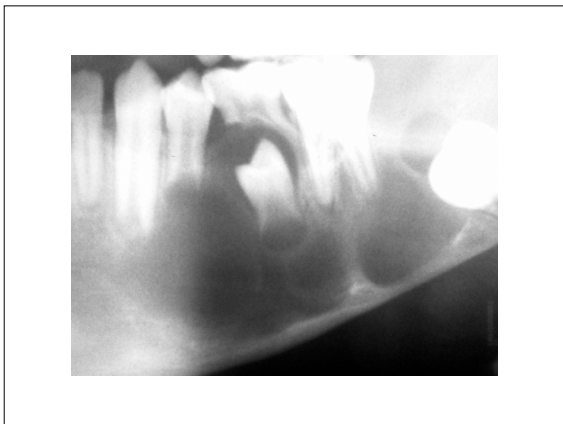
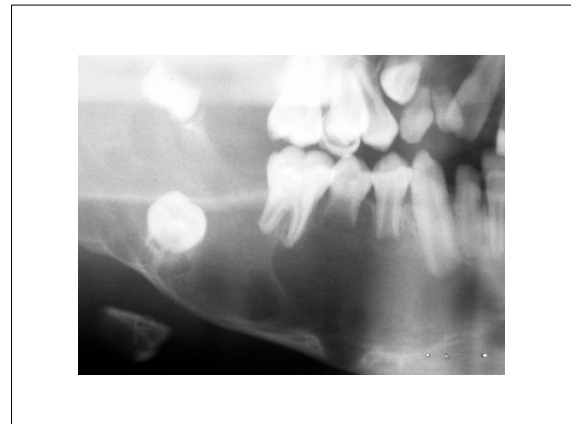
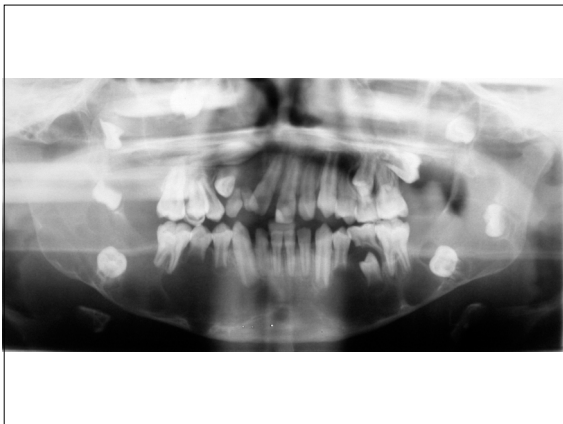
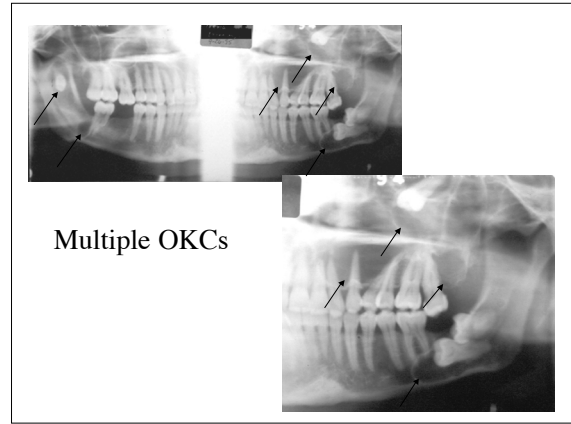


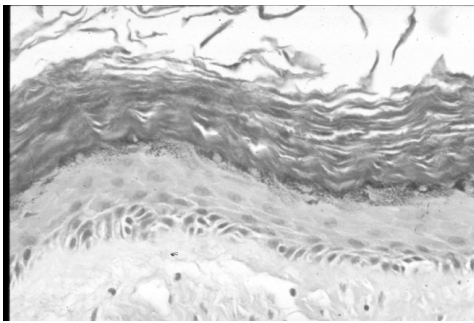
Nevoid Basal Cell Carcinoma (Gorlin) Syndrome

- Multiple basal cell carcinomas
- Multiple jaw cysts (odontogenic keratocysts)
- Numerous bone abnormalities including bifid ribs, intracranial calcification, vertebral anomalies
- Mild ocular hypertelorism
- Epidermal cysts of the skin
- Etc.

Gorlin (Nevoid Basal Cell Carcinoma) Syndrome

Basal cell carcinomas in non-sun exposed areas





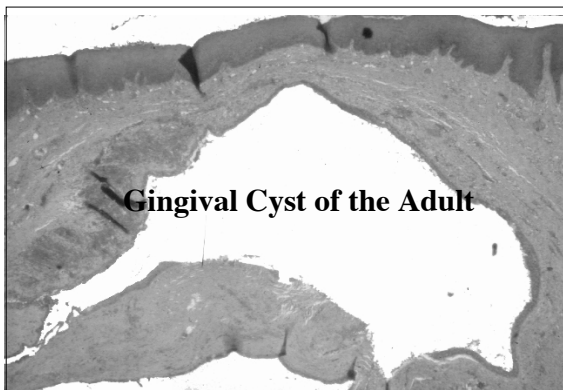
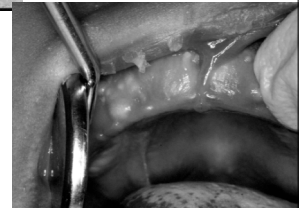
Keratinizing odontogenic cyst



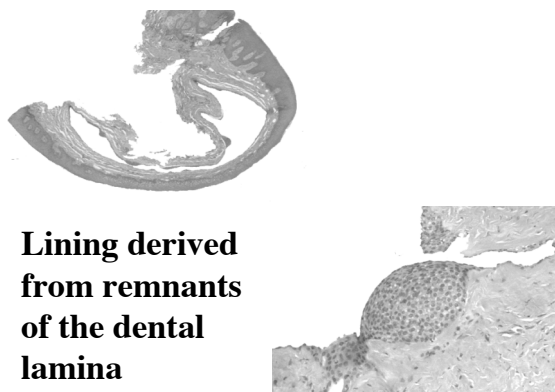
**2 Week female
brought to pediatric
dentistry clinic -
parents were very
upset**

**Gingival cysts of
the newborn**

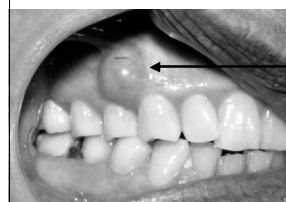
**No treatment
needed - they'll
regress in a short
time**



Gingival Cyst of the Adult

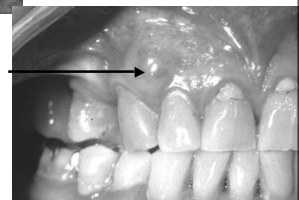


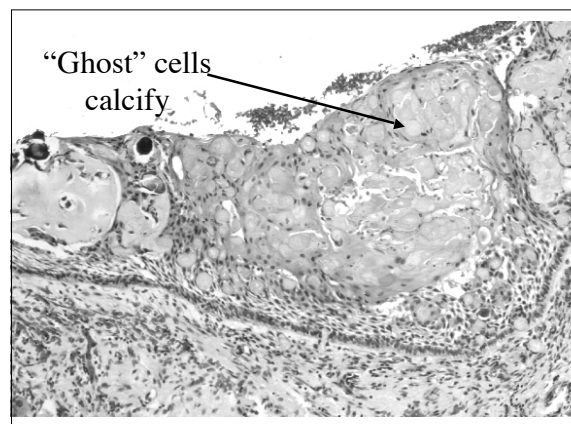
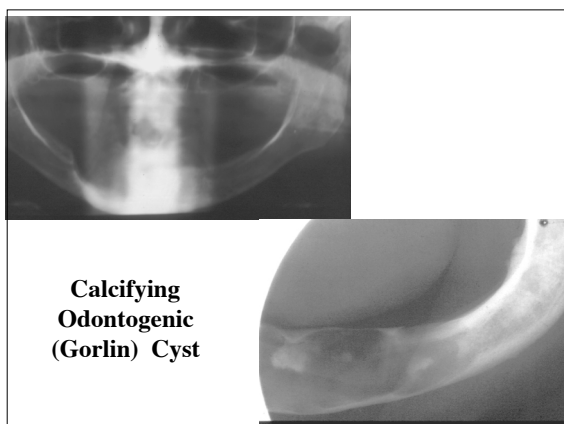
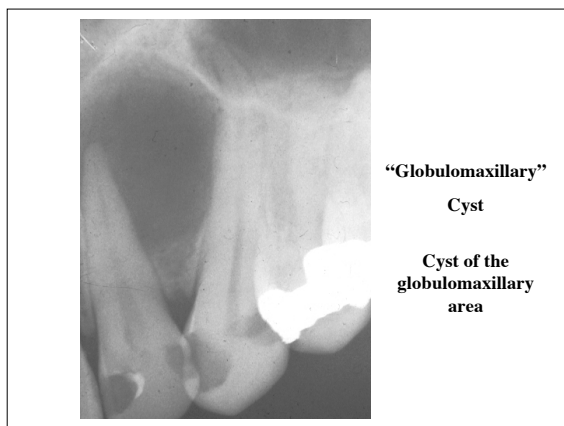
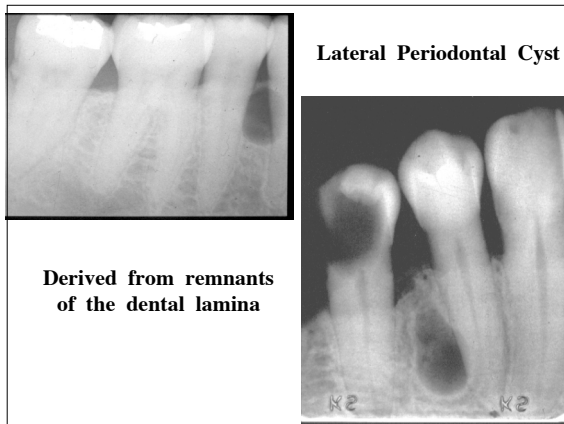
**Lining derived
from remnants
of the dental
lamina**

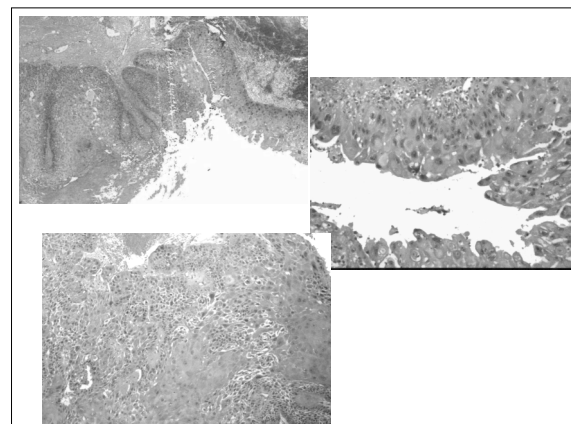
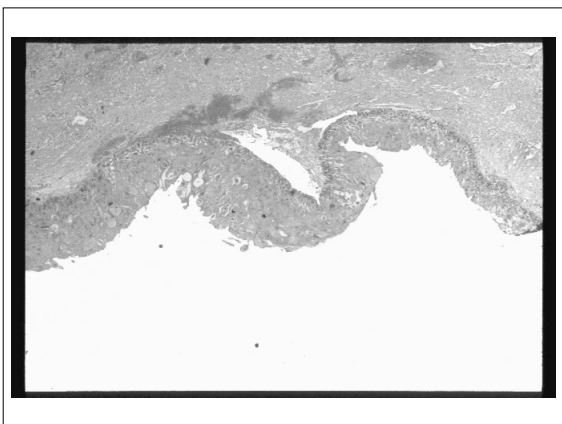
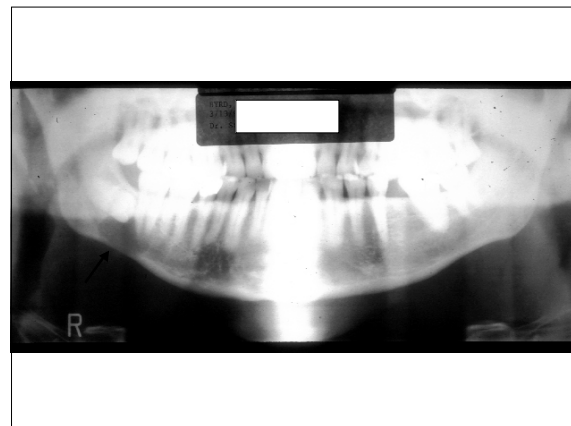
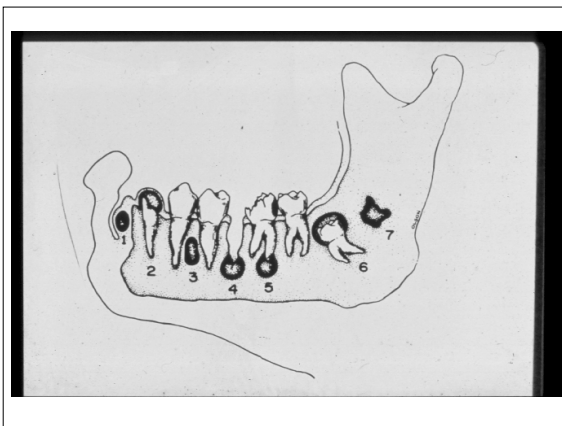
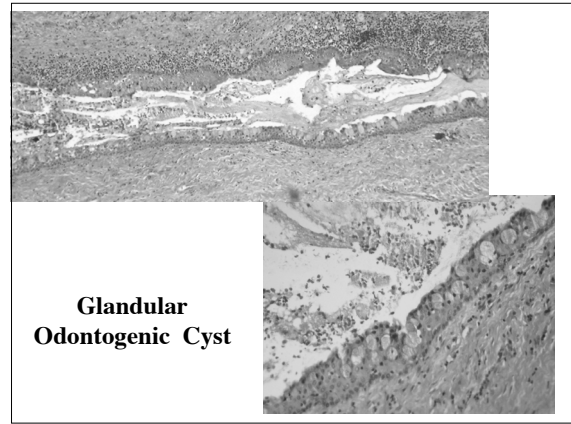


Gingival cyst

Malignant lymphoma







**Squamous cell carcinoma
arising in the
epithelial lining of a cyst**

**A rare, but definite
possibility in any cyst**

**Don't ever throw
tissue away**

**You'll have trouble
explaining to your kids why
you can't afford to send
them to college**