ODONTOGENIC CYSTS → Developmental → all others + - from unknown etiology
→ Inflammatory → Radicular cyst, Residual cyst, paradental cyst

~~RADICULAR~~ CYST (~~Pe~~ apical cyst, From inflammation

a cyst = cavity lined by epithelium. Odontogenic cyst - the epith. is odontogenic in origin

DENTIGEROUS CYST → Separation of the follicle from around the crown of an unerupted tooth.

- MOST COMMON DEVELOPMENTAL O. cyst.

PINK HIGHLIGHTS WERE ON EXAM!!

LOCATION: MAND 3rd M then MAX Canines

- Has PeriCoronal Radiolucency - unilocular w/ well defined sclerotic border, Must be > 3-4mm.

Treatment: enucleation, removal of unerupted tooth

Complications: can develop into ameloblastoma, SCC, Muco-Ep. (3)

PRIMORDIAL CYST → A Radiolucent cyst found in place of a tooth → Now we know all are OKC's (1)

Odontogenic Keratocyst → arises from Cell rests of Dental LAMINA

Location: Mandible MOLAR/RAMUS Area

- Well defined RL area w/ corticated margins, Uni or Multilocular - looks like dentigerous, radicular, residual, Lateral periodontal or Globulomaxillary cyst → ON radiograph.

Histo: *Need histo to diagnose OKC. 6-8 cell thick strat-squamous epithel. FLAT Epith-CT interface. Flattened parakeratotic Epith. cells w/ corrugated appearance. Palisaded basal layer which are hyperchromatic

- Multiple OKC's - might be Gorlin Syndrome (Nevoid Basal cell Ca.).
- tx: enucleation / curretage. Can Recurr. (3)

NEVOID BASAL CELL CARCINOMA SYNDROME

- Multiple Basal cell carcinomas of Skin, jaw cysts, Rib + Vertebral anomalies, Intracranial calcifications.
- Frontal Bossing, Prognathism
- Bifid rib most common skeletal anomaly, 50% have kyphoscoliosis, some have Spina bifida - most have falx cerebri calcification
- 75% have OKC jaw cysts. frequently Multiple (4)

GINGIVAL CYST OF NEWBORN

Alveolar process (maxilla more common). Can't see in Radiograph (soft tissue). Smaller than 2mm, multiple. (1)

- No Tx

Gingival Cyst of ADULT - Soft tissue counterpart of Lateral Perio. cyst (derived from rests of dental lamina).

- Mand. Canine/PM area
- Painless Dome-like swelling. Blue - Blue/gray. May cause superficial "cupping out" of bone.
- Tx = excision

LATERAL Periodontal Cyst: Asymptomatic. Tooth is VITAL. (lateral radicular cyst - tooth is non-vital) Origin = Dental lamina Rests. (can't diagnose on x-ray. (2)

- Cyst occuring in the lateral perio. region in which Inflammatory cyst or OKC has been excluded
- 65% in Canine/PM region (mand.), usually Unilocular RL lateral to tooth root.

CALCIFYING ODONTOGENIC CYST (GORLIN cyst) - classified as a Neoplasm but most are true cysts. (2)

- Incisor-canine region. Well defined U.L. R.L., may have opaque foci, some assoc. w/ unerupted tooth
- Most have fibrous capsule w/ 4-10 cell thick lining epith. Stellate reticulum appearance of overlying epith. GHOST cells (no nucleus), sometimes the ghost cells have calcifications. 20% have an associated odontoma

ODONTOGENIC TUMORS

AMELOBLASTOMA → Most common clinically significant odontogenic tumor.

① Solid/multicystic (86%) ② UNICYSTIC (13%) ③ Peripheral or extraosseous (1%)

SOLID or MULTICYSTIC AMELOBLASTOMA : POSTERIOR MANDIBLE

Radiolucent, well circumscribed U.L. or M.L. (soap bubble/honeycomb)

HISTO: microscopic subtypes — Granular Cell - aggressive, more Radioopaque. Desmoplastic - islands/cords in collagen stroma, anterior MAXILLA.

- May cause paresthesia if nerve is involved, can erode cortical plates.
- Should resect at least 1 cm of margin past clinical margin for less recurrence. If only curretage = big fluid recurrence. so should do MARGINAL RESECTION.

UNICYSTIC AMELOBLASTOMA - Younger pt's, POSTERIOR MANDIBLE

- Radiolucency around crown of unerupted tooth (looks like dentigerous cyst)

Histo: ① Luminal - tumor is confined to luminal surface of cyst
② Intraluminal - projects from cystic lining
③ MURAL - infiltrates fibrous cystic wall.

Treatment - cyst enucleation or local resection for Mural

PERIPHERAL AMELOBLASTOMA → Extraosseous - ~~look like~~ but have same features as the others.

Posterior gingival/alveolar mucosa, a few have erosion of superficial alveolar bone

Tx - Innocuous clinical behavior, rare malignant change, excision w/ low recurrence.

(9)

MALIGNANT AMELOBLASTOMA : < 1% Ameloblastomas become malignant.

Look like typical ameloblastoma but metastasizes. Ameloblastic Carcinoma - looks malignant in histo

*T know difference btw Malignant A. and Ameloblastic Ca.

Mets most often in Lungs or cervical lymph nodes.

Radiograph: ~~Ma~~ Malignant A. looks just like typical Ameloblastoma, Ameloblastic Ca. Ca has ill defined margins and is more aggressive w/ cortical destruction

(1)

AMELOBLASTIC FIBROMA - True neoplasm. MIXED 70% post. mandible. U.L. or M.L. RL, well defined and tend to be sclerotic. 50% ~~ass~~ assoc. w/ unerupted tooth (looks like dentigerous)

Histo: tumor has cell-rich mesenchymal tissue that looks like dental papilla

- Often encapsulated, can get quite large + expand cortex.

(2)

ADENOMATOID ODONTOGENIC TUMOR - an epith. tumor that induces odontogenic ectomesenchyme — dentinoid produced.

ANTERIOR Jaw (canine) 65% maxilla. 75% assoc. w/ crown of unerupted tooth

- Pericoronal RL, with opaque material (snowflake calcifications)
- Histo - Thick fibrous capsule, spindle shaped epith. cells that form sheets, strands or whorled masses with little connective tissue. Epith. cells may form rosette-like structures

(2)

ODONTOMA - MOST COMMON odontogenic tumor. NOT A TRUE NEOPLASM (just a developmental anomaly - hamartoma).

* Compound - Multiple small tooth-like structures
* Complex - Conglomerate mass of enamel + dentin - no resemblance to a tooth.

- age: 14 mean age. location: Compound - anterior max. Complex - Posterior mand or max.

go from RL w/ smooth contours to R.O. well defined.

- most are small - not bigger than normal tooth size, some can be big + cause jaw expansion.

(4)

Myxoma - RL multilocular (soap bubble) (Tennis racket), indistinct borders. Has loosely arranged cells in abundant/loose myxoid stroma (1)

Cementoblastoma - Roots of post. teeth mand > max. R.O. lesion attached to + replacing Roots, opaque radiating spicules

- local expansion, slow growth, usually asymptomatic. TX - surgically extract tooth w/ mass.

Histo: Sheets of thick trabeculae of mineralized material, basophilic reversal lines, Giant cells, resembles ~~ost~~ osteoblastoma.

(3)

ORAL MANIFESTATIONS OF SYSTEMIC DISEASES

MUCOPOLYSACCHARIDOSES - Means bunch of diseases where you don't have enzymes to make G.A.G's. (2)

*PINK HIGHLIGHTS WERE ON EXAM

- Coarse Face, Retarded, Cloudy cordea, Stiff joints, Macroglossia, gingival hyperplasia, pointed cusps, Diastemas, impacted teeth w/ large follicles, obliterated pulp.
- Types: MPS I - IV AKA Hurler, Sheie, Hunter, Sanfilippo*, Morquio, Moroteaux

LIPID RETICULOENDOTHELIOSES - diseases where you can't process Lipids (Lipid STORAGE)

- ~~Types~~ GAUCHER (bone marrow Macrophage) — Mild cases = no tx
  NIEMANN-PICK (Macrophage) - Severe - enzyme replacement therapy, FATAL
  TAY-SACHS (NEURONS) - FATAL

LIPID PROTEINOSIS - diseases where you deposit PAS(+) crap into dermis + Submucosa

- Affects LARYNX, Pharynx, esophagus, Tonsils, VULVA, rectum, Skin (Lips + eyelids 1st)
  Nodular TONGUE ENLARGEMENT, Labial + Buccal mucosa

JAUNDICE - Too much Bilirubin in bloodstream = yellow skin/mucosa. (1)

- Affinity for Soft palate, lingual frenum + Sclera because it likes elastin
- UNCONJUGATED → from Hemolysis or impaired processing (Bilirubin normally gets conjugated in liver and then put into bile for excretion). So if you have too much Conjugated Bilirubin it is a problem with excretion

Amyloidosis → disorders where you deposit lots of protein crap in tissues. (2)

- CONGO Red stains it.

ORGAN LIMITED → Just get a Nodule of amyloid

SYSTEMIC → ~~Primary + Myeloma associated, Hemodialysis-assoc~~

- Primary + Myeloma associated → 65+ → carpal tunnel, Mucocutaneous Nodules, Macroglossia, Xerostomia, get Renal failure.
- SECONDARY → associated w/ another disease like infection, osteomyelitis, TB, RA
- Hemodialysis-assoc → dialysis can't remove B-2 microglobulin so it goes into ~~tissues~~ Joints + sometimes tongue. Need kidney transplant.
- HEREDOFAMILIAL → POLYNEUROPATHY, Cardiomyopathy, CHF, Renal Failure.

VITAMIN DEFICIENCIES: VIT A → BLIND, ECZEMA, LEUKOPLAKIA.

VIT B_1 (Thiamine) → Beriberi → Cardiovascular problems, Peripheral Vasodilation, Korsakoff syndrome.

VIT B_2 (Riboflavin) → GLOSSITIS, Angular cheilitis, Sore/Swollen throat + Mucosa. Pale lips (2)

~~VIT~~ NIACIN → PELLAGRA w/ dermatitis triad (Face-neck-forearms) dementia + Diarrhea, Stomatitis, glossitis

VIT B_6 (Pyridoxine) →

VIT C → SCURVY, hemmorhages, gingival swelling, tooth mobility, periodontitis.

VIT D → Rickets (child) → enamel hypoplasia, dentin disturbance, delayed eruption
Osteomalacia (adult) — osteopenia, fracture, bone pain

VIT K → hemmorhages

IRON DEFICIENCY ANEMIA → common Anemia. from menorrhagia, or bleeding in GI Tract (1)

- Fatigue, lightheaded, Angular cheilitis, Atrophic glossitis, Mucosa atrophy, tender tongue

PLUMMER-VINSON (Patterson-Kelly) → Iron deficiency anemia, Glossitis + dysphagia

- Esophageal webs, spoon nails (koilonychia). PRE-MALIGNANT for oral/pharyngeal/esophageal Carcinoma

Pernicious Anemia - uncommon. From Low B_{12} absorption from lack of Intrinsic Factor
- Can't make RBC's. Burning lips, tongue, mucosa, erythema of mucosa

Pituitary Dwarfism → from Low GH. Proportional but stunted growth (not midgets)
- Delayed tooth eruption

Gigantism → from ↑ GH from Adenoma usually. Accelerated proportional growth Prior to epiphyseal closure - then Acromegaly. Assoc. w/ McUNE Albright.

Acromegaly → ↑ GH after epiphyseal closure. Big hands, head, Mandible (prognathic, diastemas)
- enlarged soft palate = sleep apnea, enlarged tongue.
- w/ Gigantism + Acromegaly get shortened life span - heart problems, pulmonary dx.

HypoTHYROID Cretinism in Infancy / MYXEDEMA in Adults. (2)
- Facial swelling, peripheral edema, husky voice, bradycardia, hypothermia
- Enlarged Lips, Tongue, delayed eruption

Hyperthyroid → Graves dx (auto antibodies to TSH receptors). (2)
- Nervousness, heat intolerance/perspiration, weight loss, ↑ appetite, [redacted]
- ~~Sensitive to EPI~~ - exaggerates Tachycardia + Hypertension.

HypoParathyroi → low PTH - gives calcium imbalance
- Hypocalcemia, enamel hypoplasia if present during odontogenesis

Pseudo Hypoparathyroid → Cells don't respond to PTH. Type Ia → mild retardation, obesity, maxillary hypoplasia, short metacarpals/tarsals, thick fingers, Osteoma Cutis, Hypogonadism, Hypothyroidism
- Enamel hypoplasia, wide pulp chambers, "dagger-shaped" pulp calcifications, Oligodontia, delayed eruption

HyperParathyroid → Too much PTH: #1 cause = adenoma (1° HyperPTH) 2° = from renal dx. (4)
- produces benign bone tumor that looks like central Giant Cell granuloma of Jaws.
- Stones, Bones (resorption, [redacted] dura, ground glass, brown tumors) GI Groans (duodenal ulcers) psychic moans

Secondary form produces striking jaw enlargement + ground Glass appearance.
- High Ca^+ low PO_4 in blood for primary high PO_4 for 2°
  - both get hypercalciuria/phosphaturia

HyperCortisol - Cushings - lots of Glucocorticoids from too much ACTH secretion.
- Central Weight gain, buffalo hump, moon Facies, osteoporosis, Hypertension, depression, hyperglycemia, polydypsia/uria, muscle wasting.
- low cortisol so has poor response to stress - Medical consult before Dental Tx to adjust corticosteroid therapy

Addisons - low adrenal corticosteroid (hypoadrenocorticism). Autoimmune destruction (2)
- Need >90% destruction for symptoms - fatigue, irritability, ORAL Freckling/skin hyperpigmentation & G.I upset, weight loss,

Diabetes → Complications = peripheral vascular disease + impaired neutrophil function. (1)
- periodontitis, slow healing, Candidiasis, diabetic sialoadenosis, Xerostomia

Hypophosphatasia - low alkaline phosphatases - poorly mineralized bone = bowing/fracture, low cementum = exfoliation (1)

Oral Pathology 4/12/06

Student Test Report On Exam 3 A

Course #: 214
Course Title: Oral Path
Day/Time:

Instructor: Dr. S. Hirsch
Description: Oral Pathology
Term/Year: Spr 2006

Student Name: [redacted]
Student ID: XXXXX0801 **Code:**

	Possible Pts.	Raw	Objective	Exam#/Essay	Percent	Grade
EXAM 3:	71.00	58.00	58.00	0	81.69%	B

	Possible Pts.	Raw	Percent	Grade	Mean	Median
Cumulative:	253.00	204.00	80.63%	B	202.42	202.50

Response Description:
<dash> correct response <#> multiple marks <space> no response
<alphabet> student's incorrect response <*> bonus test item

Test Items:	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50
Test Key:	A,D,E,A,E	D,E,E,D,C	D,A,E,E,A	D,D,C,C,B	E,C,A,E,C	B,A,A,A,B	C,D,D,E,C	B,D,A,B,C	D,E,D,A,D	B,C,C,B,C
Answers	-,-,-,-,-	-,-,-,E,-	-,-,-,-,-	-,-,-,-,-	-,-,-,-,-	E,-,-,-,-	-,-,-,-,E	-,-,-,-,-	C,-,-,B,E	D,-,-,-,D

Test Items:	51-55	56-60	61-65	66-70	71-71					
Test Key:	E,D,C,B,A	C,A,C,C,E	E,D,E,E,B	A,D,D,E,E	D					
Answers	-,-,-,-,-	D,-,-,-,B	A,-,B,-,-	B,-,-,-,-	-					

Remarks:

Student's Answer to Multiple Mark Question:

No multiple mark answers or answer keys found on this test.

#12 Ques. Everyone Missed

pseudocyst → STAFNE cyst

#26 Mesenchyme of dental follicle → Myxoma

60 - predisposition to tooth loss in hypophosphatasia -
- reduction in cementum on root surface.

61 - Chrons - most likely in Ileum + proximal colon

#63 - ↑ risk of oral, pharyngeal + gastric carcinoma
→ plummer-vinson syndrome.

#65 - Serum of hyperparathyroidism -

Pictures

(1) amyloidosis P. 711 17-6
(2) OKC P. 596 15-17
(3) dentigerous cyst → not path agnomonic on radiograph.
(4) Ameloblastoma - Histo pic. - paresthesia of lower lip
Ameloblastoma radiograph - A and C
(5) Nevoid basal cell ca. Syndrome features
(6) Pyostomatitis vegetans - P. 735 17-40A (similar but different picture)
(7) Hypothyroid girl - P. 720 Fig 17-17
(8) bone loss, giant cells in loose connective tiss Stroma
(9) -Secondary hyperparathyroid - Also maxillary bone swelling
(10) Compound odontoma - P. 631 15-102
(11) Hyperthyroidism - P. 722 17-21
(12) Multiple pigmentation - addisons - P. 727 17-29 (but in cheek)
(13) Cementoma