Oral Pathology Final Exam Review Table TuAnh Le & Enoch Ng, DDS 2014

Bump under tongue:
- Ranula (remove lesion and feeding gland)
- dermoid cyst (neoplasm from 3 germ layers) (surgical removal)
- cystic teratoma,
- cyst of blandin nuhn (surgical removal down to muscle, recurrence likely)
- mucoepidermoid carcinoma

Bump anterior of palate:
- minor salivary gland tumor
- nasopalatine duct cyst (surgical removal, rare recurrence)
- torus palatinus
- 4 P's (excise for biopsy; curette vigorously!)
  - Pyogenic granuloma (vascular; granulation tissue)
  - Peripheral giant cell granuloma (purple-blue lesions)
  - Peripheral ossifying fibroma (bone, cartilage/ ossifying material)
  - Peripheral fibroma (fibrous ct)
- Kertocystic Odontogenic Tumor (KOT): unique histology of cyst lining! (see histo notes below); 3 important things: (1) high recurrence rate (2) highly aggressive (3) related to Gorlin syndrome
- Hyperparathyroidism: excess PTH found via lab test
- mucoepidermoid carcinoma (mixture of mucus-producing and squamous epidermoid cells; most common minor salivary gland tumor) (get it out!)

Bump on hard palate:
- minor salivary gland tumor
- malignant lymphoma
- vascular lesion
- tumor of other subepithelial tissue

Bump on skin by ear:
- pleomorphic adenoma
- epidermoid cyst of the skin (ball of keratin w/epithelial lining)
- lymphoma
- Sjogren's syndrome
- acinic cell adenocarcinoma (most in parotid; acinar differentiation)
- malignant mixed tumor (malignant conversion of pleomorphic adenoma)

Yellow bump:
- oral lymphoepithelial cyst (crypt of lymphoid tissue collapses)
- verruciform xanthoma (macrophages filled w/ fat) (excision, biopsy)
- lipoma (benign ball of fat)
- neurofibroma (neoplasm of cells surrounding nerves)

Radiolucency impacted tooth:
- dentigerous cyst (separation of follicle from the unerupted tooth; most common developmental odontogenic cyst)
- AOT: adenomatoid odontogenic tumor (kid) (gland-like)
- KOT: keratocystic odontogenic tumor (adult if not kid)
- Ameloblastoma
- Cementoblastoma
- central odontogenic fibroma
- ameloblastic fibroma

Radiolucency non-impacted tooth:
- periapical cyst/ granuloma
- osteomyelitis
- odontogenic cysts
- focal cement-osseous dysplasia
- ossifying fibroma
- aneurysmal bone cyst
- Ameloblastoma: (1 large radiolucency)
- unicystic ameloblastoma
- simple (traumatic bone cyst)
- stafne defect
- Langerhan's cell disease (malignancy)
- ameloblastic fibroma

Radiopaque lesions:
- cemento-osseous dysplasia
- condensing osteitis
- idiopathic osteosclerosis
- cementoblastoma (50% 1st molar)

Multilocular radiolucency:
- cherubism
- ameloblastoma
- KOT
- odontogenic myxoma

Mixed radiolucencies:
- calcifying odontogenic (Gorlin) cyst
- periapical cemento-osseous dysplasia (nothing)
- florid cemento-osseous dysplasia (nothing)
- focal cemento-osseous dysplasia (biopsy then do nothing)

Multiple bumps on skin:
- Nevoid basal cell carcinoma (Gorlin syndrome)
- Neurofibromatosis (see notes below) (refer to derm MD, tell family members)
- Nevus

Bump on gingiva:
- gingival cyst of the adult/ newborn
- 4 P's
- malignant lymphoma
- gingival cyst
- lateral periodontal cyst
- Wegener's granulomatosis (strawberry gingivitis) (necrotizing granulomatous lesion)

Bump on lower lip:
- Mucocele (remove if stays longer than 2 weeks)
- Fibroma (fibrous →trauma) (excise, biopsy)
- Lipoma (adipose tissue) (excise, biopsy →floats)
- Neurofibromatosis (see notes below) (refer to derm MD, tell family members)

General radiopacities:
- Pagets
- Thalassemia
- Osteopetrosis

Lips spots:
- Addison's disease
- Peuts Jaeghers
- oral melantotic macule
- racial pigmentation (nothing)
- melanomas

Buccal spots:
- addison's disease
- amalgam tattoo
- oral melanoacanthoma
- blue nevus

Bump(s) on buccal mucosa:
- Crohn's disase
- Multifocal epithelia hyperplasia
- Sarcoidosis
- Varix
- Fordyce granules

Inflamed gingiva:
- ANUG (better oral hygiene, antibiotics)
- Crohn's disease
- Wegener's syndrome
- Leukemia/ lymphoma
- Diabetes

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Multiple bony bumps:
- Exostosis
- osteoma
- osteosarcoma
- chondrosarcoma

Tumors of Jaws:
- BRONJ
- osteoradionecrosis,

*any bone related radiograph = osteosarcoma, chondrosarcoma, metastatic tumors (breast/ prostate, lungs/ kidneys)

Diffuse white lesions (buccal/ lateral tongue mucosa):
- lichen planus
- leukoedema (variation of normal, disappear with stretch)
- cinnamon stomatitis
- dentifrice stomatitis
- cheek chewing
- speckled erythroplakia (red with white spots) (biopsy → most likely SCC → surgery)
- pseudomembranous/ hyperplastic candidiasis
  - diabetes, drugs, debilitation, dryness, dentures
- GVHD
- SCC
- white sponge nevus (bilateral),
- idiopathic leukoplakia (see notes) (biopsy; tx according to what it is)

Tongue lesions:
- SCC
- erosive lichen planus
- GVHD
- geographic tongue
- median rhomboid glossitis (erythematous candidiasis from palate moves to middle of tongue) (azoles)
- lichen planus
- xerostomia
- neurofibromatosis (see notes below) (refer to derm MD, tell family members)
- granular cell tumor (schwannoma, histo looks like SCC b/c has PEH) (biopsy to oral pathologist)
- hemangioma (benign tumor of bld vessels, larger than varix) (DO not biopsy – bleed! OMFS)

Ulcer:
- deep fungal: histoplasmosis
- major aphthous (↓CD4/CD8, stress/sick) (corticosteroids)
- Behcet's syndrome - autoimmune
- erosive lichen planus
- GVHD
- pemphigus vulgarus (referral to derm MD)
- cicatricial pemphigoid (referral to derm MD, topical cortocsteroids, oral hygiene, bleaching tray)
- herpes (low grade fever, malaise, lymphadenopathy) (acyclovir)
  - major herpes
  - herpes zoster – excruciatingly painful (wants endo or extract)
  - recurrent intraoral herpes

Ulcer on palate:
- necrotizing sialometaplasia
- SCC
- major aphthous (↓CD4/CD8, stress/sick) (corticosteroids)
- erosive lichen planus
- histoplasmosis
- adenoid cystic carcinoma (perineural invasion)

Diffuse red lesion:
- GVHD
- speckled erythroplakia (red with white spots) (biopsy → most likely SCC → surgery)
- pseudomembranous candidiasis (wipes off) (antifungal: Diflucan)
- dentifrice/ cinnamon stomatitis
- pseudoepithelial hyperplasia

Gingival lesion:
- GVHD
- pemphipus/ pemphigoid
- waterpick lesion

Swollen Lips
- orofacial granulomatosis (over time) (eliminate cause or intralesional steroid injections)
- angioedema (overnight) (mast cell degranulation) (oral antihistamines, IM epinephrine)
- stomatitis (allergic reaction)

Crusty Lips:
- Erythema multiforme (autoimmune; HSV, Bacterial, or Fungal can predispose)
- actinic cheilitis
- angular cheilitis
- Addison's disease (adrenal insufficiency)
- impetigo (strep or staph infection; outbreaks in close living quarters) (Topical antibiotics that kill penicillin resistant staph)
- primary herpetic gingivostomatitis
- recurrent herpes labialis
- seborrheic keratosis (benign, common on old ppl, "stuck on lesions", thickening of epithelium) (refer to derm MD)

White Plaque lesions:
- idiopathic leukoplakia
- hyperkeratosis
- pseudomembranous candidiasis
- hyperplastic candidiasis
- erythroplakia (giant red area than white) (biopsy = cancer → remove)
- CSS

Teeth color:

WHITE:
- fluorosis (must rule out)
- amelogenesis imperfecta
- decalcification

YELLOW:

extrinsic
- staining
- caries
- bacterial staining
- food/ drinks
- tobacco

intrinsic –
- amelogenesis imperfecta
- dentinogenesis imperfecta
- dentin dysplasia (type II)
- tetracycline
- congenital erythropoietic porphyria
- hyperbilirubinemia

Physical teeth characterisitics:

Notch in incisor:
- Turner's teeth
- Syphilis
- Hutchinson's incisors

Hard Palate (radiographic):
- antral pseudocyst
- sinusitis

Papillary Growth:
- squamous papilloma (remove: surgery, laser, or cold)
- proliferative verrucous leukoplakia
- verrucous carcinoma (low grade variant SCC) (excisional biopsy)

BOLD: lesion location
BLUE: differential
RED: discriminating characteristic
GREEN: treatment

HISTOLOGY

Histology for KOT: epithelium came from dental lamina or extensions of basal cells from the overlying oral epithelium

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

Histology of Giant Cells

1. CGCG
2. PGCG
3. ABC
4. Cherubism
5. Brown Tumor Hyperparathyroidism
6. Neurofibromatosis
7. Sarcoidosis (chronic inflammatory and histiocytes)

Histology of Lichen Planus

1. Hyperkeratosis
2. Acanthosis
3. Irregular rete ridges "saw tooth"
4. "Band-like" infiltrate of lymphocytes
5. Liquefactive degeneration of the basal cell layer

Histology of Pemphigus/ Pemphigoid

1. Pemphigus: between cells – loss of desmosomes in spinous layer – sloughing, fatal
2. Pemphigoid: basement membrane detachment – cornea problems

Gingival Cyst

- Lining from remnants of dental lamina

Periapical Cyst

- Lining from rests of malassez

Periapical Granumola

- Granulation tissue, no epithelium

Ameloblastoma

- Palisaiding cells, nuclei polarized away from basement membrane
- Epithelial only

AOT

- Glandlike structures within solid tumor of odontogenic cells
- Epithelial only

Nasopalatine Cysts

- Squamous and respiratory lining
- Large blood vessels and nerves within cyst wall

Ameloblastic Fibroma

- Mixed odontogenic tumor (ectoderm and ectomesenchyme)
- If tooth material present—Ameloblastic Fibro-odontoma

Neurofibromatosis:

At least 2 or more of the following:

- 6 or more café au laite spots
- 2 or more neurofibroma of any type/ plexiform
- Freckling in axillary/ inguinal regions
- Optic glioma
- 2 or more lisch nodules
- Distinctive osseous lesions
- 1st deg relative with NF

Idiopathic Leukoplakia:

1. No cause
2. Causative agent carcinogen
3. Location (High risk: ventral/ posterior-lateral tongue, Low risk: hard palate, dorsal tongue)
4. Ulceration, induration, redness (erythroplakia)

*Granulation tissue = fibrovascular healing tissue, a stage of inflammation-repair
*granuloma = localized chronic inflammatory response characterized by histiocytes & giant cells

Antifungul: azos
Antivirals: cyclovirs