Oral Histopathology

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Series 8 (7 cases)

Case	Features
Odontogenic keratocyst (keratocystic odontogenic tumor)	• Palisading of basal cells • 4-7 cell layers thickness • Parakeratin at surface (lining cyst) • Cyst detaches from connective tissue in some places (a common finding)
Connective tissue hyaline bodies, with calcification	• A common finding in the wall of cysts, periapical granulomas and other inflammatory lesions with foreign body infiltration • Calcifications (dark purple 'globules' and 'ring like' structures) • Hyaline bodies (light pink amorphous material) – *hyalinization* refers to the increased density of pink (eosinophilic) staining material often found in connective tissues in many diseases • Multinucleated giant cells noted in proximity to the calcified structures
Squamous cell carcinoma, well differentiated	• Nests and islands of squamous epithelium infiltrating connective tissue • Keratinization and keratin pearls [hallmark of *well differentiated* carcinoma; absence of keratin and a more 'blue' appearance to the epithelial cells/nests of loss of their usual characteristics favors a diagnosis of *moderately to poorly differentiated* carcinoma and may warrant special (keratin) stains, to identify tumor as squamous in origin]
Nasopalatine duct cyst	• Developmental cyst, based on location (midline, anterior maxilla, usually area #8-9), radiographic presentation (radiolucency, usually > 5-6 mm in diameter, sometimes heart-shaped) and clinical presentation (vital teeth, absence of periodontal disease) • Cyst lined by squamous, cuboidal or respiratory-type epithelium • Neurovascular elements often found in wall (though not required) • Lesion more 'posterior' is referred to as *median palatal cyst* • Lesion without bone involvement referred to as *cyst of the incisive papilla* • In 'uncertain' cases, the diagnosis of *consistent with contents of the nasopalatine canal/incisive papilla* may be rendered
Condylar head, tendon, muscle, marrow	• Condyle resection; bone, skeletal muscle, hematopoietic marrow present • The surface has a dense collagenous 'fibrotic' appearance consistent with the clinical history (destructive disease of the condylar head)
Odontogenic keratocyst (OKC) with daughter cysts	• First two slides are frozen sections, stained first with hematoxylin only (blue) with some hint of cyst lining, then stained with hematoxylin/eosin showing some hint of basal palisading and surface keratin) • Remaining slides show the characteristic histology of OKC (basal palisading, multiple cell layers, surface keratin) and presence of multiple daughter cysts and islands; these may explain both high recurrence rates (up to 60%) and should also alert the clinician to the possibility of *nevoid basal cell carcinoma syndrome* and careful radiographic evaluation for signs of additional cysts and clinical evaluation for basal cell carcinomas, enlarged head, familial tendency, etc.
Sialolith	• Decalcified to aid in cutting, consists of lamellated (layered) mineral and bacterial content