

Oral Histopathology

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Series 37 (16 cases)

Case	Features
Chronic sinusitis, mycetoma, and oxalate crystals	<ul style="list-style-type: none"> Respiratory epithelium with underlying chronic inflammation The tell-tale 'tide lines' within the cyst lumen are noted (these are characteristic of <i>Aspergillus</i> and other fungal organisms) The polarized images show the birefringent crystals (known in these cases to be oxalate crystals)
BFOL, c/w cemento-osseous dysplasia	<ul style="list-style-type: none"> As with any benign fibro-osseous lesion, the histology alone is not helpful (irregular bone trabeculae in a fibrous to cellular background) The presence of osteoblasts 'rimming' the bone helps favor a cemento-osseous dysplasia or ossifying fibroma but does not absolutely exclude fibrous dysplasia or other processes The radiograph in this case favored cemento-osseous dysplasia (mixed density lesion without expansion)
BFOL, c/w ossifying fibroma	<ul style="list-style-type: none"> As with any benign fibro-osseous lesion, the histology alone is not helpful (irregular bone trabeculae in a fibrous to cellular background) The presence of normal bone at the periphery and both osteoid/bone and osteocementum favors a 'well defined' process The radiology in this case favored ossifying fibroma (well defined but expansile mass with displacement of roots)
Hyperorthokeratosis	<ul style="list-style-type: none"> Typical of frictional keratosis (such as alveolar ridge keratosis) Orthokeratin lacks nuclei in the keratin layer but shows a prominent granular layer
Squamous cell carcinoma, well differentiated	<ul style="list-style-type: none"> Keratinizing carcinoma arising from the surface epithelium; cellular and nuclear pleomorphism and individual cell keratinization are noted
Squamous cell carcinoma, poorly differentiated	<ul style="list-style-type: none"> Minimal keratinization with marked nuclear pleomorphism; cells to appear to be adhering to one another (suggesting epithelial/squamous origin) Immunohistochemistry is helpful in these cases (keratin staining favors carcinoma, S-100 staining would favor melanoma, CD45 staining would favor a lymphoproliferative process)
Gutta percha and cement	<ul style="list-style-type: none"> The root tip with exogenous pigmented material can be seen The gutta percha does not polarize, the cement does
Exogenous polarizable foreign body and giant cell reaction	<ul style="list-style-type: none"> Foreign body (multinucleated) giant cells are reacting to the foreign material which weakly polarizes These are typical cases of some implanted cosmetic (augmentation) materials, but may also be seen in trauma (so-called "road rash" and others)
Exogenous polarizable material (lip augmentation)	<ul style="list-style-type: none"> Compare to the prior case; the polarizable material is VERY regular and uniform and multinucleated giant cells are evident
TUGSE	<ul style="list-style-type: none"> So-called <i>traumatic ulcerative granuloma with stromal eosinophilia</i> or <i>eosinophilic ulcer</i> seen most often on the tongue, characterized by ulcer and eosinophils infiltrating skeletal muscle
Lateral periodontal cyst	<ul style="list-style-type: none"> Simple squamous epithelium Location (lateral aspect #8) and vitality (vital tooth) are important
Lateral periodontal cyst	<ul style="list-style-type: none"> Simple squamous epithelium with focal thickening and separation of epithelium from connective tissue (common in these cases)

	<ul style="list-style-type: none"> • Location (area #20-21) and vitality (vital tooth) are important
c/w surgical ciliated cyst	<ul style="list-style-type: none"> • Cyst lined by respiratory type epithelium • Surgical history aids in diagnosis (suggests entrapment of respiratory mucosa and formation of cyst)
OKC (KCOT)	<ul style="list-style-type: none"> • Basal palisading, 5-8 layers of cells, corrugated parakeratin
Ameloblastoma, cystic	<ul style="list-style-type: none"> • A challenging case where the cyst lining is the ameloblastoma, characterized by more subtle palisading and reverse polarization of the basal cell layer; the stellate reticulum lines the cyst lumen • In these cases, evaluation of the lesion in its entirety is mandatory to exclude a solid ameloblastoma component
Fibroma with colloidal collagen	<ul style="list-style-type: none"> • The unusual histology is that of the dense collagen fibers • The special stains (Congo red, crystal violet, and thioflavin T) were performed to exclude amyloid (the stains do not demonstrate amyloid in this case)