Oral Histopathology

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Series 11 (10 cases)

Case	Features
Squamous papilloma	• Papillary proliferation with marked orthokeratinization • On the skin, this would be the appearance of a *verruca vulgaris* (common wart), secondary to infection by HPV 2,4,6,40 • Intraorally, the preferred term is *squamous papilloma* and is associated with HPV 6,11
Verrucous carcinoma	• Often the sequella to smokeless tobacco keratosis or *proliferative verrucous leukoplakia* • Characterized by a papillary or verrucous outgrowth, usually parakeratinized with only mild to moderate dysplastic changes and epithelial disarray; a "cupping" effect is often noted at the lesion (lateral) edges; keratin plugs are noted between the epithelial papillary outgrowths, as are areas of dyskeratosis, individual cell keratinization and some keratin pearl formation • Invasive growth is not identified (such a finding would mandate a diagnosis of *squamous cell carcinoma*
Odontogenic keratocyst	• One of many repeat cases, showing basal palisading, a cyst lining 5-8 layers, and parakeratin which also fills the cyst lumen
Central giant cell granuloma	• The presence of multinucleated (osteoclast-type) giant cells • Evaluation for parathyroid and renal pathology warranted in central (osseous) lesions
Pyogenic granuloma, ulcerated	• Almost entirely ulcerated [devoid of epithelial surface, lined by fibrin (pseudomembrane)] • Vascular granulation tissue (the term *granulation tissue type hemangioma* may also be used as the diagnosis and is more accurate a term)
Granular cell tumor	• Well-defined submucosal nodule usually (as in this case) on the tongue dorsum • At higher magnification, condensed and uncondensed images highlight the granular nature of the cells, which are likely nerve-derived and stain for S-100 (an immunohistochemical stain which highlights nerve and melanocytic/nevus cells)
Salivary duct cyst	• A cyst from the floor of the mouth lined by simple to double layer squamous to cuboidal epithelium, with surface mucosa; mucus is not identified, nor are minor salivary glands, but the clinical presentation (of *ranula*) corroborated the diagnosis • The terms *mucocele (retention type), ductal ectasia* (dilation of duct), *salivary duct cyst* and *cystadenoma* may all represent a spectrum of lesions from smaller to larger that all eppear clinically as mucoceles/ranulas
Odontoma	• A *compound odontoma* consisting of a tooth-like structure (it even has cusps) consisting of more basophilic (blue) enamel matrix and eosinophilic (pink) dentin and pre-dentin; the pulp has separated and is seen on the left of the low power view • Higher magnification highlights columnar *ameloblasts* lining the enamel matrix, *odontoblasts* lining the pre-dentin and the loose or 'myxoid' primitive pulp which stains pale violet
Ameloblastic fibro-odontoma	• Multiple images show a variably staining (pink to violet) myxoid background containing epithelial odontogenic rests which bear similarity to (but are more simple and smaller than) the islands of ameloblastoma and multiple malformed tooth-like masses composed of enamel matrix and dentin [without the odontomas, the diagnosis would be *ameloblastic fibroma*)
Regional odontodysplasia	• Radiographically present as 'ghost teeth' • Histologically consists of some tooth-like structure (enamel and dentin) and aggregates of basophilic/purple staining calcified material (*enameloid conglomerates*)