

Case #1 A 50 y/o male presents with a parotid mass. Based on the histologic findings, the best diagnosis is:

C. Acinic Cell Carcinoma

Answer: C. **Acinic Cell Carcinoma**. Acinic cell carcinoma (AcCC) can have many different morphology patterns (solid, microcystic, papillary-cystic, & follicular) with different cells types (non-specific glandular, intercalated ductal, vacuolated, and clear). This can cause a great diversity in appearances under the microscope. Fortunately, most cases have a serous appearance, and the zymogen granules can be highlighted with a PAS stain. It is important to keep AcCC in the back of one's mind where confronted with a difficult salivary gland lesion. (Thompson, p. 332-339)

Case #2 The lesion presented in the images for this case comes from the lateral nasal wall of a 56 y/o male. Based on these findings, the best diagnosis is:

B. Endophytic Schneiderian Papilloma

Answer: B. **Inverted / Endophytic Schneiderian Papilloma (IP)**. IPs most commonly are found along the lateral nasal wall. Importantly, they undergo malignant transformation is approximately 10% of the cases. Overall, both exophytic and endophytic papillomas will recur 50-60% of the time, but the malignant transformation is primarily seen in the inverted subtype. Another interesting tidbit is that both exophytic and endophytic papillomas have a male predominance (4:1), while cylindrical cell type papillomas have an equal gender distribution. It is best to consider these papillomas as three distinctive entities. (Thompson, p. 124-132)

Case #3 A 50 y/o male presents with a parotid mass. Based on the histologic findings, the best diagnosis is:

E. Mucoepidermoid Carcinoma

Answer: E. **Mucoepidermoid Carcinoma (MEC)**. MEC is the most common malignant salivary gland tumor in both children and adults. It most commonly occurs in the 5<sup>th</sup> decade and is more common in females (3:2). This tumor is characterized by epidermoid, intermediate, and mucus cells. The most important diagnostic activity is to identify intracellular mucin (this may be very scarce). There are several grading systems (not covered here), and in general, the more solid the lesion, the more likely it is high grade (low grade lesions tend to be more cystic). (Thompson, p. 325-332)

Case #4 A 65 y/o female presents with a well circumscribed parotid mass with no other known lesions. Based on the histologic images associated with this case, the best diagnosis is:

B. Parotid oncocytoma

Answer: B. **Oncocytoma of the Parotid.** Oncocytomas are rare salivary gland tumors (1%). When present, they are found in the parotid gland in 80-90% of cases. In general they have the same findings of oncocytomas in other locations, and contain numerous mitochondria in the cytoplasm. *Test taking strategy.* Warthin's tumor and papillary cystadenoma lymphomatosum are the same entity. (Thompson, p. 306-309)

Case #5 A 35 y/o woman presents with a parotid mass. Representative histologic sections are shown. Based on the findings, the best diagnosis is:

C. Pleomorphic Adenoma

Answer: C. **Pleomorphic Adenoma (PA).** PAs are characterized by a remarkable amount of histologic heterogeneity. It is composed of varying proportions of epithelial ductal structures, myoepithelial cell, and mesenchymal stroma (any portion may predominate). PAs are the most common salivary gland tumor (F > M) comprising 54-76% of salivary gland neoplasms. They are most commonly diagnosed between the age of 30 and 40 years old. (Thompson, p. 295-300)

Case #6 A 40 y/o male presents with a minor salivary gland mass. Based on the histologic sections shown, the best diagnosis is:

C. Sclerosing sialoadenitis

Answer: C. **Sclerosing Sialoadenitis.** The lobular architecture of the salivary gland is retained at low power, but the acinar structures have been destroyed by the inflammatory process leaving only ductal elements with a fibrotic background. This process is almost identical to the appearance of chronic pancreatitis.

Question #1 Juvenile laryngeal papillomatosis is most commonly associated with which of the following virus types:

C. HPV types 6 & 11

Answer: C. HPV types 6 & 11 are most commonly associated with juvenile laryngeal papillomatosis, and transmission occurs at the time of birth. HPV types 16 & 18 are associated with more aggressive disease. ("Head and Neck Pathology." Adair, C. *The Osler Institute*. 2004.)

Question #2 Bilateral acoustic schwannomas of the eighth cranial nerve is associated with which of the following disorders:

B. Neurofibromatosis, type II

Answer: B. Bilateral acoustic schwannomas is associated with NF, type 2. The schwannomas are characterized by antoni A (hypercellular) and antoni B (hypocellular) areas, verocay bodies (palisading of nuclei), and S-100 positivity.

Question #3 How often is acinic cell carcinoma is found in the parotid gland?

D. 80%

Answer: D. Acinic cell carcinoma is located in the parotid gland approximately 80% of the time. It is found in the submandibular gland 4% of the time and the sublingual gland 1% of the time. (Thompson, p. 333-334)

Question #4 All of the following regarding congenital granular cell epulis is true EXCEPT:

B. S-100 positive

Answer: B. Congenital granular cell epulis is a rare tumor that affects newborns and is identical morphologically to an adult granular cell tumor. Congenital epulis is S-100 negative, which differentiates it from an adult granular cell tumor. This is not considered to be related to an adult granular cell tumor (Schwann cell derived), and its cell origin is unknown. They occur along the alveolar ridge and usually are found on the gingival. (Thompson, p. 256-258)

References:

*Head and Neck Pathology.* Thompson, LD, *et al.* First Edition. 2006.

“Head and Neck Pathology.” Adair, C. *The Osler Institute.* 2004.

**Notes for question set:**<sup>1</sup>

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