

7 Major Salivary Glands

The gross appearance of some salivary gland neoplasms is so characteristic that one can come close to establishing the diagnosis on the gross findings alone. Yet, all too often, salivary glands are simply inked, bread-loafed, and thrown into tissue cassettes. Take time to describe the appearance of any lesions encountered.

Examine the external surface of the specimen after it has been weighed and measured. Without help from the surgeon, it is usually not possible to distinguish the superficial from the deep lobe of the parotid. The surgeon sometimes uses a suture or tag to designate one or both lobes in total parotidectomy specimens. Carefully look for and tag with safety pins any large nerves that may have been resected with the gland. It is important to sample these nerves for histology, but they will not be identifiable after the specimen has been inked. After it has been oriented and inked, palpate the specimen and identify the tumor. Next, section the gland at 2- to 3-mm intervals. Measure the size of the tumor and describe its gross appearance. Is it well demarcated and encapsulated or poorly demarcated and infiltrative? Is the tumor solid or cystic? Are areas of cartilaginous differentiation appreciable grossly? How close is the tumor to the margins? Carefully examine the salivary gland parenchyma, keeping in mind that salivary gland tumors may be multinodular (e.g., recurrent pleomorphic adenomas) or multicentric (e.g., Warthin's tumor).

Salivary gland neoplasms should be thoroughly if not entirely sampled for microscopic examination. Sampling that is too limited runs the risk of: (1) missing focal areas of malignant transformation in a pre-existing adenoma; and (2) providing an incomplete representation of the overall microscopic appearance of these morpho-

logically diverse neoplasms. Do not just scoop out the center of the tumor; instead, carefully submit sections showing the relationship of the tumor to the inked soft tissue margin, the tumor to the adjacent uninvolved gland, and, as noted, the tumor to any grossly identifiable nerves. Once the tumor has been described and submitted for histology, the rest of the gland can be examined and described. The parotid gland is unique among the major salivary glands in that it harbors a number of intraparenchymal lymph nodes. Thus, your search for lymph nodes should include the parotid parenchyma itself in addition to the periparotid soft tissues. These lymph nodes should be entirely submitted for histologic evaluation. Are any calculi present, and are the ducts of the salivary gland dilated? Submit representative sections of grossly uninvolved salivary gland.

Important Issues to Address in Your Surgical Pathology Report on Salivary Glands

- What procedure was performed, and what structures/organs are present? For parotid resections, which lobes have been removed?
- Is a neoplasm present?
- What are the type, size, and degree of differentiation of the tumor?
- Does the tumor infiltrate small or large nerves?
- Does the tumor involve any of the margins?
- If lymph nodes are present, how many are present, and how many are involved by tumor?
- Does the non-neoplastic portion of the salivary gland show any pathology?