

**ADENOCARCINOMA (NOT OTHERWISE SPECIFIED)**

Adenocarcinoma is a malignant neoplasm which shows a glandular growth pattern microscopically. The tumors are particularly common in the head and neck area especially as related to salivary glands. As might be expected, there is a spectrum of differentiation and biologic behavior with some showing a particular predilection for invasion of nerves.

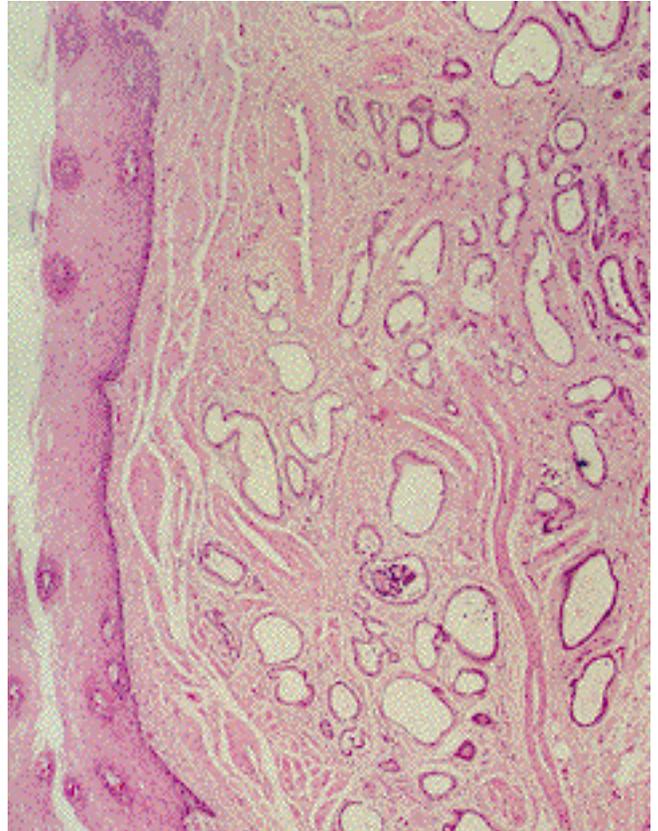
Some twenty specific types of malignant epithelial salivary gland tumors and tumors from other sites are known. In addition, there is a subset of tumors that do not easily fit into the defined tumor subtypes and the term adenocarcinoma not otherwise specified (NOS) is then applied.

Microscopically, adenocarcinomas NOS, generally are the same as other adenocarcinomas. Borders tend to be irregular and there may be extension into extraglandular tissues. Histological diagnosis may be more by exclusion of other better recognized neoplasm, than by recognition of any particular morphologic features of "adenocarcinoma NOS". Grading of these tumors is based on the degrees of differentiation with low, intermediate and high grade lesions encountered. Growth patterns are extremely varied and often there is complete lack of differentiation. Formation of glandular or duct-like structures is the key diagnostic except in poorly differentiated tumors when the diagnosis undifferentiated carcinoma may be preferable.

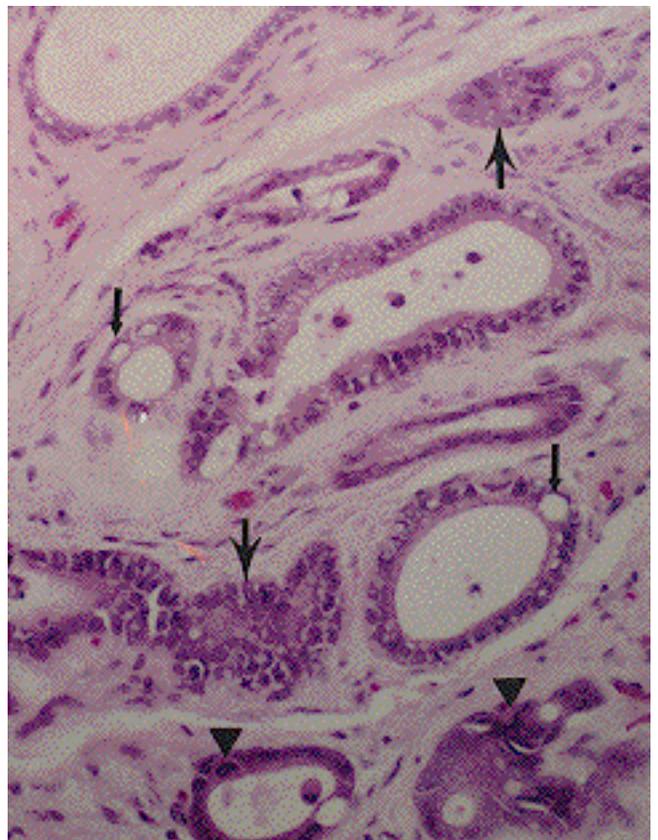
Low grade tumors may be well-circumscribed or with focal infiltration, and contain well-formed duct-like structures with lumina and have relatively bland appearing cells and few mitoses. The vesicular nuclei, round to ovoid, and other bland features seem to contrast with the parenchymal infiltration that is apt to be present with tumor extension into muscle.

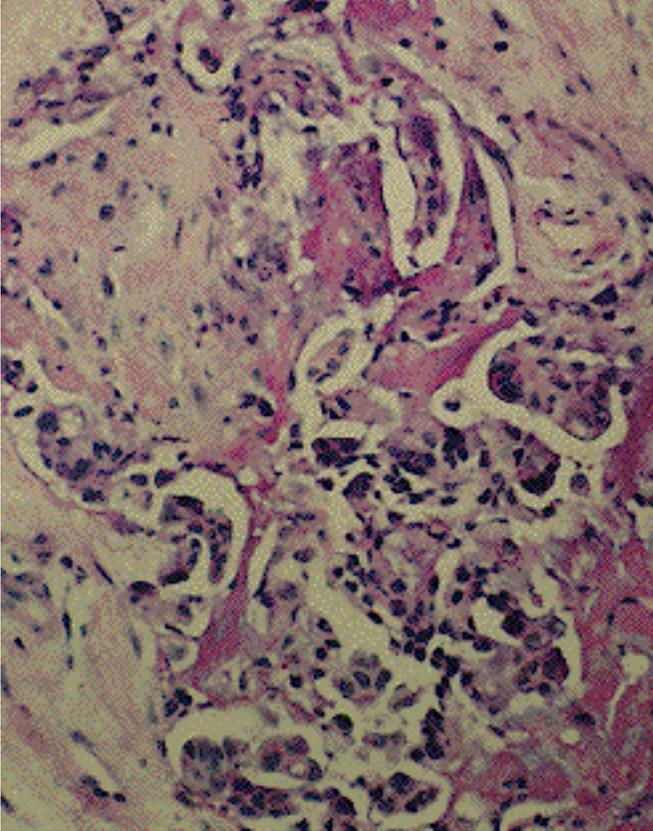
High grade tumors also shows glandular differentiation but with more solid areas of tumor growth, more mitoses and greater nuclear variability. Intracellular and extracellular mucus may be demonstrated with proper stains. Tumor giant cells may be present.

Adenocarcinoma, well differentiated, esophagus. This shows spread of tumor beneath normal esophageal mucosa of squamous type. Glands are well formed here but were less well formed in other areas. Vascular invasion was present.

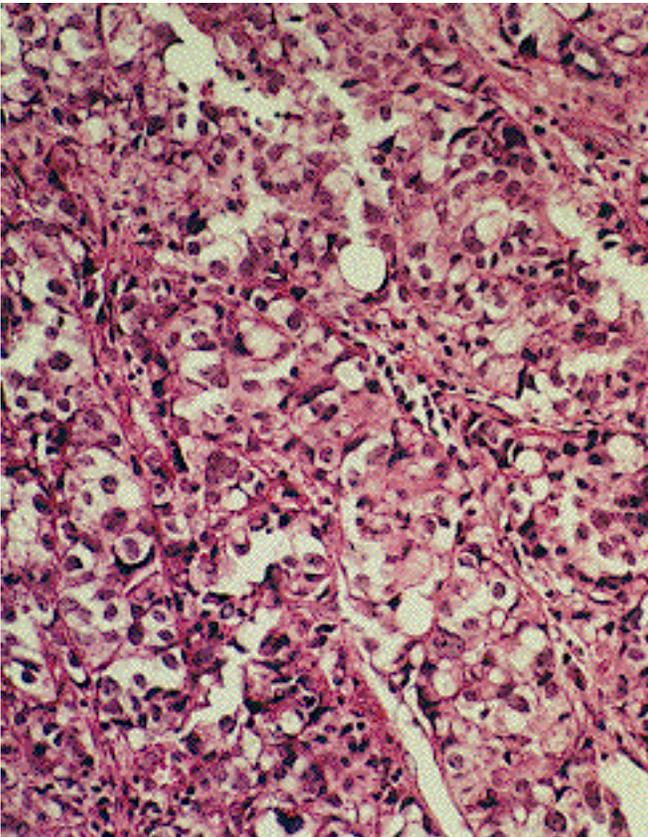


Adenocarcinoma, well differentiated, esophagus. This is a higher power photo of the same tumor. Lumens of well formed glands are present and other glands are tangentially sectioned (large arrows). Nuclei appear crowded or piled up. There is some hyperchromatism and pleomorphism.



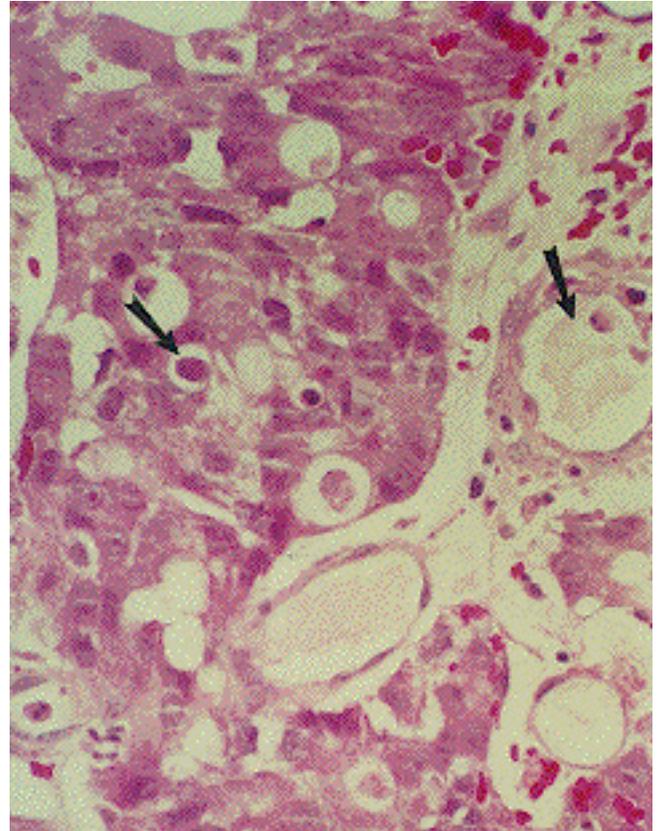


Adenocarcinoma, esophagus, poorly differentiated. Some attempt at glandular formation along with small nests of malignant cells and nuclear pleomorphism and hyperchromatism.

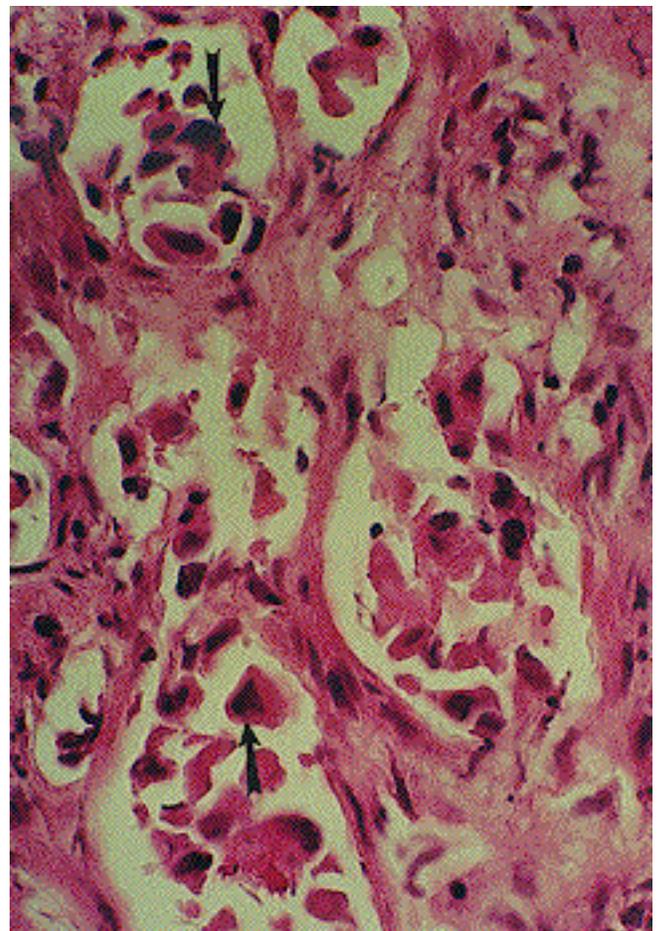


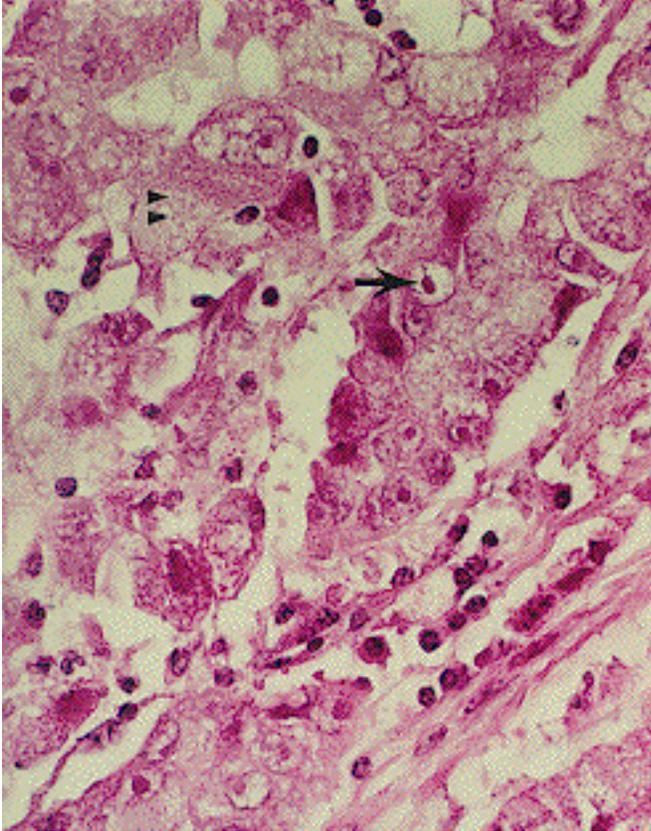
Adenocarcinoma, signet ring cell type, esophagus. Many cells show mucus production but there is little attempt at glandular formation. Mucus is within individual cells rather than extruded into the surrounding stroma.

Adenocarcinoma, tonsil, intermediate grade. Large mucus cysts and mucus production in individual cells (large arrow) which have abundant eosinophilic cytoplasm.



Adenocarcinoma, zygomatic area, poorly differentiated. Hyperchromatic nuclei and cellular pleomorphism (arrows). Some suggestion of glandular formation but mucus production is absent.





Adenocarcinoma, parotid, high grade. Nuclei are quite pleomorphic and show prominent nucleoli (arrow). Cytoplasm has an eosinophilic foamy appearance (triangles). Mucus is present but no definite glandular pattern is seen.