

ONCOCYTOMA AND ONCOCYTIC ADENOCARCINOMA

Oncocytes are benign epithelial cells that appear in young adult life and are of unknown function. They may form tumors with nests and cords of cells, especially in the parotid gland but oncocytic tumors are rare in any site. Such a tumor grows slowly and is painless.

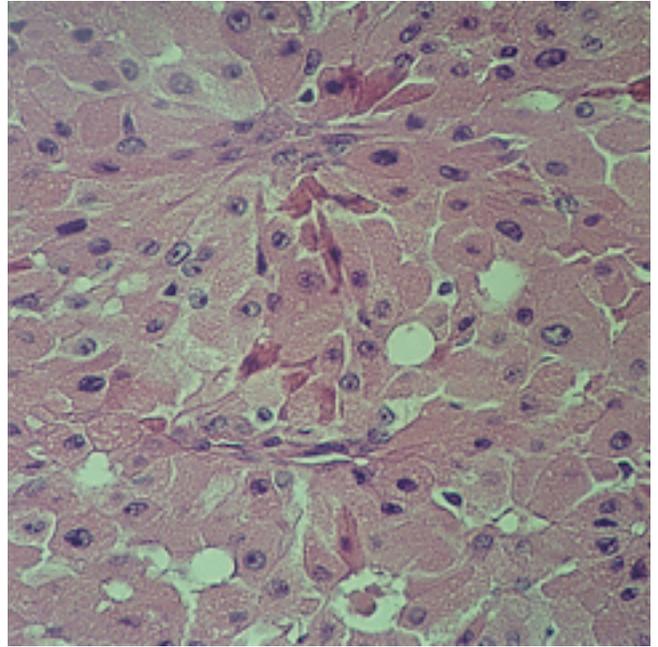
Microscopically, large epithelial cells swollen with mitochondria give a granular appearance to the cytoplasm. The cell color is brightly eosinophilic. Nuclei are round, central and vesicular. There are sheets and columns of cells, papillary formations, and sometimes a glandular pattern. Clear cells occur in some tumors (clear cell oncocytoma). The tumor is encapsulated. Treatment is surgical excision and prognosis is good.

Oncocytes may also be found scattered or in small groups in otherwise normal organs such as the thyroid; oncocytic epithelium is a part of Warthin's tumor.

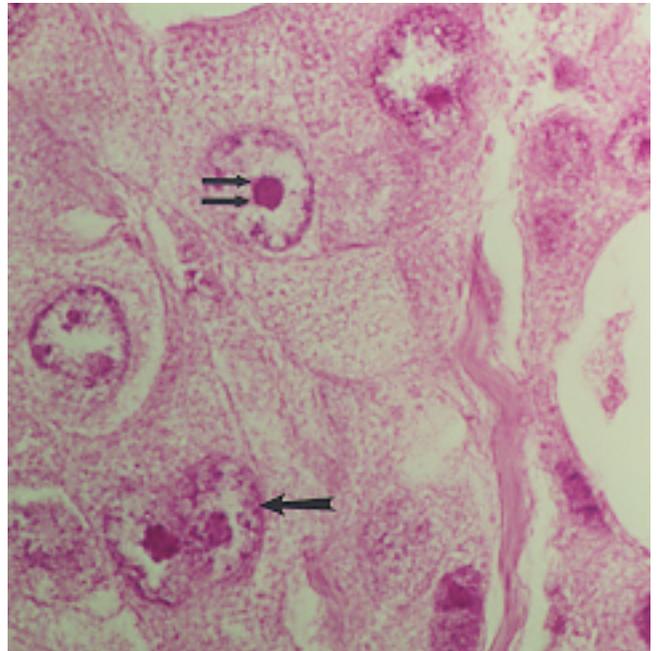
ONCOCYTIC ADENOCARCINOMA

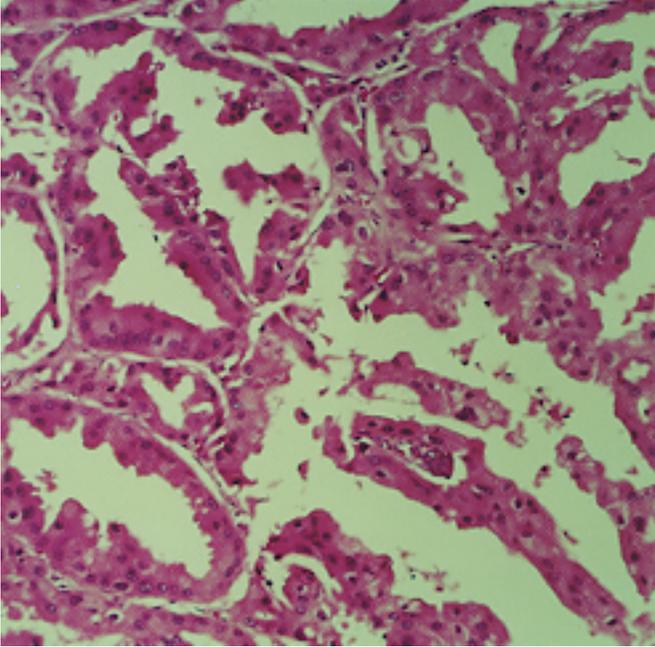
This is a rare, malignant tumor, affecting chiefly the elderly, which may arise from a benign oncocytoma, or independently, and affects predominantly the parotid gland. Oncocytes are present that have features of adenocarcinoma. Cells are large and round with nuclear pleomorphism and hyperchromatism. Perineural and intravascular invasion, local infiltration and metastatic disease are helpful in diagnosis. There is no capsule. An alveolar or sequestered pattern and papillary formation are common. Complete parotidectomy is required and postoperative irradiation therapy may help.

Oncocytic adenoma (oncocytoma). This is a benign tumor. Cytoplasm has a granular appearance and is abundant. There is a tendency toward a glandular pattern in some cases, but these tumors are often composed of a solid sheet of cells. Cell shape is polyhedral with a central, vesicular nucleus and small nucleolus.

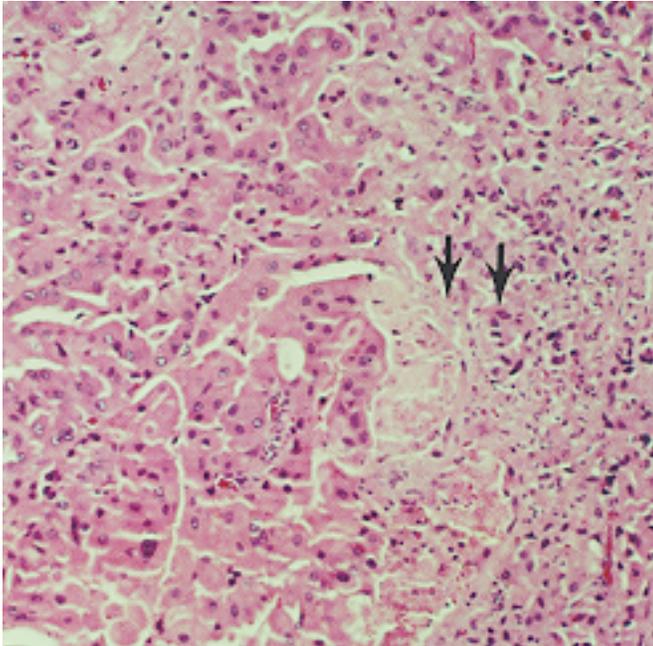


Oncocytic adenocarcinoma, metastatic. Markedly granular and abundant eosinophilic cytoplasm and large pleomorphic cells, one of which is binucleate (single arrow). Nuclei are large with prominent red nucleoli (double arrows) and mitochondria. Compare with benign tumor upper left.





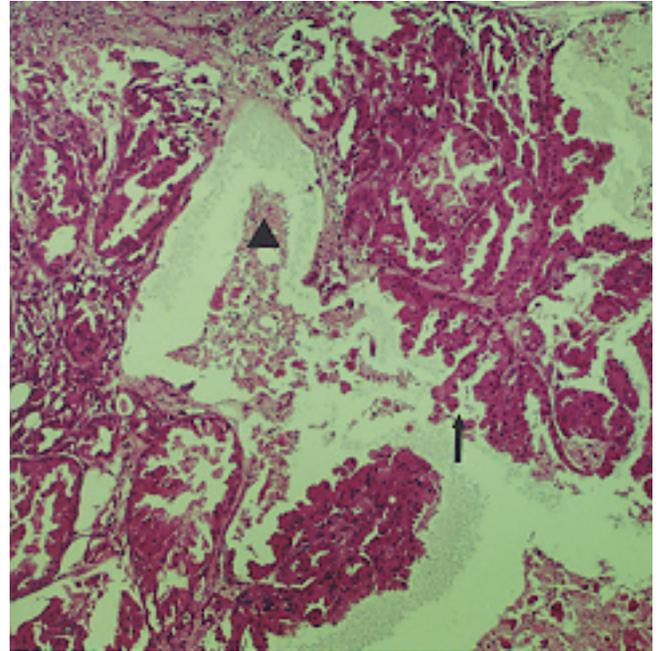
Oncocytic adenocarcinoma. An alveolar and papillary pattern is present.



Oncocytic adenocarcinoma, metastatic. Necrotic area (arrows). Tumor has an alveolar pattern.

Oncocytic adenocarcinoma

Papillary pattern (arrow) and necrotic areas (triangle).



Oncocytic adenocarcinoma. Abnormal mitosis (arrow) is seen and there is granular cytoplasm. Nuclei represent a large part of the cell and nucleoli stand out.

