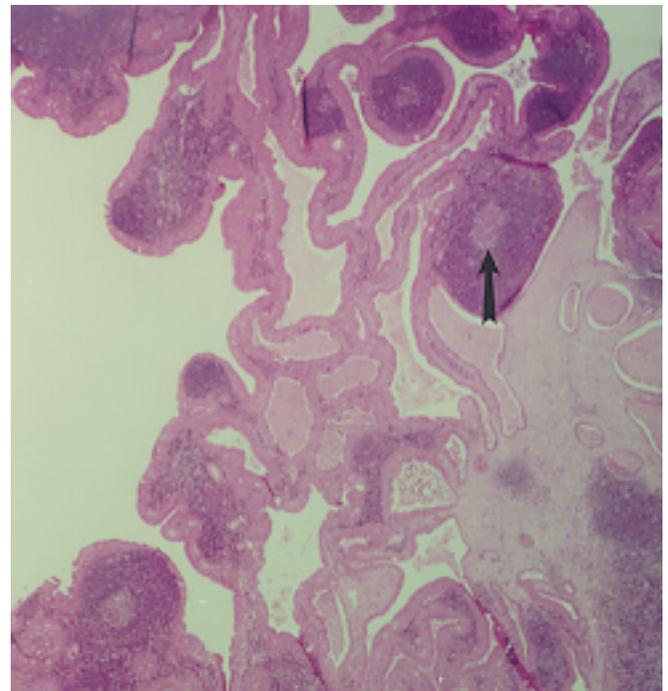


## **WARTHIN'S TUMOR** **(PAPILLARY CYSTADENOMA LYMPHOMATOSUM)** **(ADENOLYMPHOMA)**

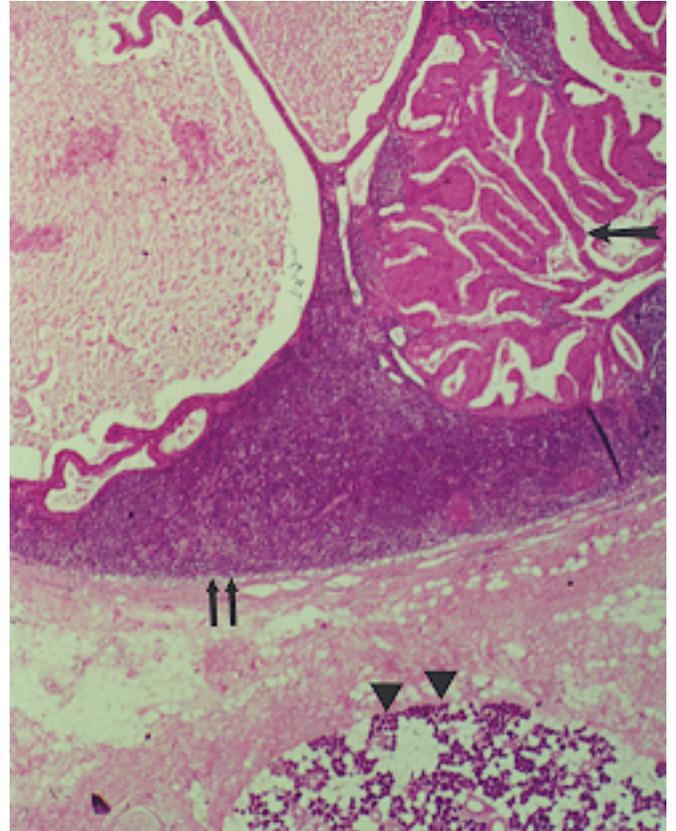
This tumor, seen predominantly in men, generally affects the parotid gland, sometimes bilaterally. It is considered one type of monomorphic adenoma. Some Warthin's tumors have been reported outside of the parotid in lymph nodes or in tissue just adjacent to the parotid. A focal occurrence in a node could be confused with metastatic carcinoma. A typical Warthin's tumor is encapsulated, smooth, and lobular and measures from 1 to 8 cm. When sectioned, a milky or brownish fluid runs out of multiple cystic spaces. Grossly, papillary formations can be made out and white spots are seen that represent lymphoid follicles.

Microscopically, there are papillary formations, cystic spaces and a supporting stroma of dense lymphoid tissue with follicles. The lymphoid tissue is a reactive component. Two layers of cells face the cystic spaces—an inner non-ciliated columnar layer and an outer cuboidal layer. Both cells have granular, eosinophilic cytoplasm and are called oncocytes. Mucus secreting cells are present in some tumors and there may be squamous metaplasia and focal necrosis.

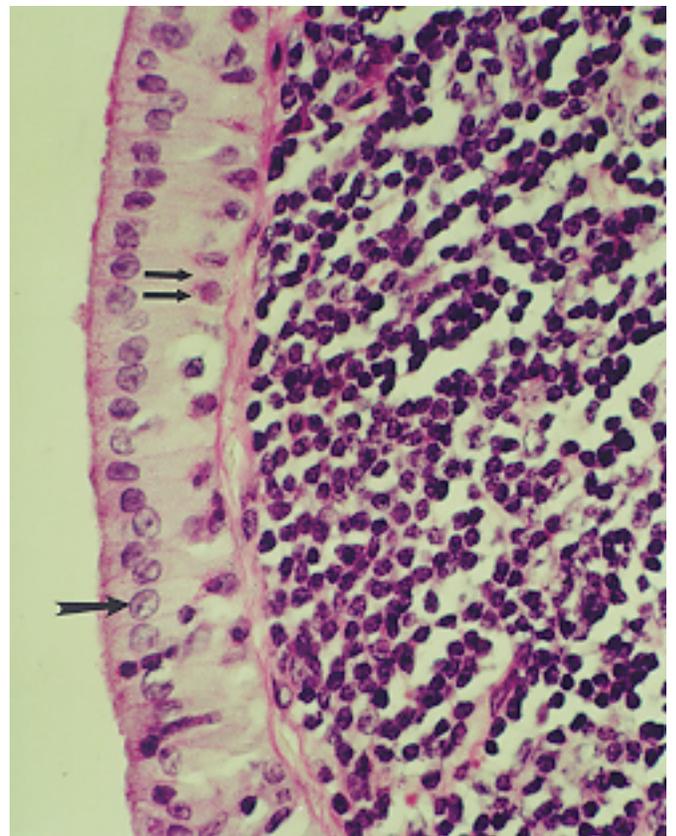
Warthin's tumor, showing papillary and cystic areas and collections of lymphoid tissue with germinal centers (arrow).

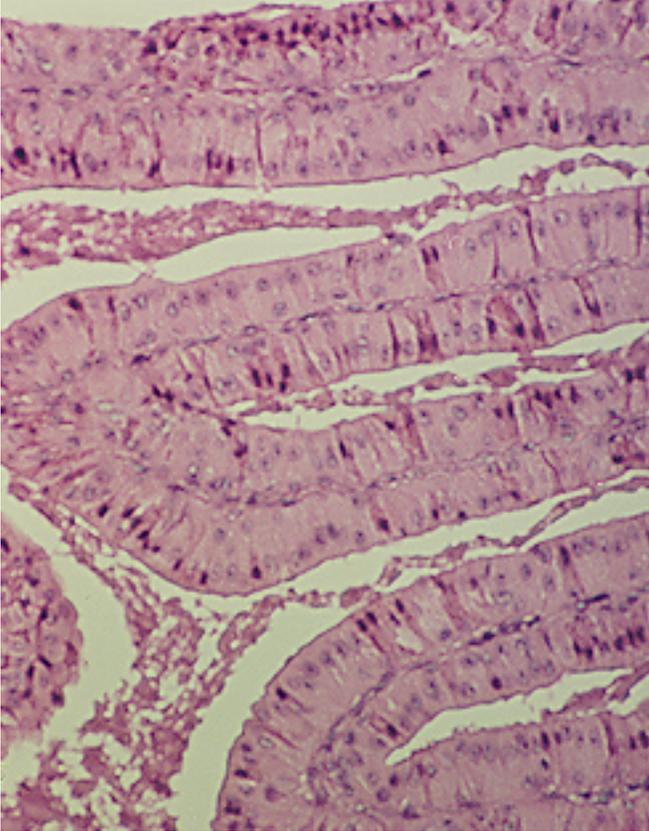


Warthin's tumor, showing normal parotid (triangles) and a distinct capsule separating tumor from gland. Large cystic spaces and dense collection of lymphoid tissue (double arrows). There is an infolding of a papilla (arrow); papillae may pack together so tightly as to give a solid appearance to some areas of tumor.

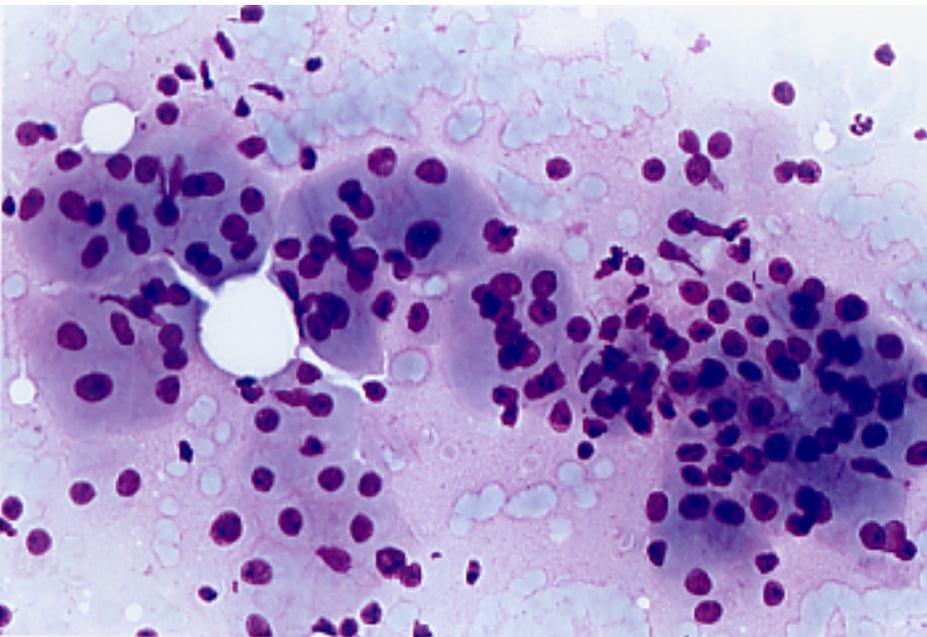


Warthin's tumor, shows two cell layers. The luminal layer (single arrow) is non-ciliated columnar with nuclei centrally placed while the basal layer is cuboidal (double arrows). Both cell layers have eosinophilic, finely granular cytoplasm and are called oncocytes. A dense lymphocytic collection forms the stroma.





Warthin's tumor, two cell layers and papillary formations with debris in cystic spaces.



Warthin Tumor. FNA of parotid mass. This field is dominated by numerous clusters of oncocytes. Oncocytes (also called oxyphils) are characterized by abundant fine granular cytoplasm and single rounded nuclei. The cell borders of oncocytes on smears are often lost on smears and the cells appear as a syncytium. Cell nuclei are typically uniform as in this image, but isolated nucleomegaly is not uncommon. Small mature lymphocytes are scattered in the background. Diff-Quik stain.

**CLINICAL ASPECTS**

First described in 1895, this tumor was called papillary cystadenoma lymphomatosum by Warthin in 1929. It has 23 synonyms in the English language due to different opinions regarding origin of the tumor. Almost all Warthin's tumors occur in the parotid gland and account for 5 percent of parotid tumors. Malignant change is reported rarely.

Treatment consists of simple surgical excision and as long as the capsule is not broken, there is little likelihood of recurrence.