

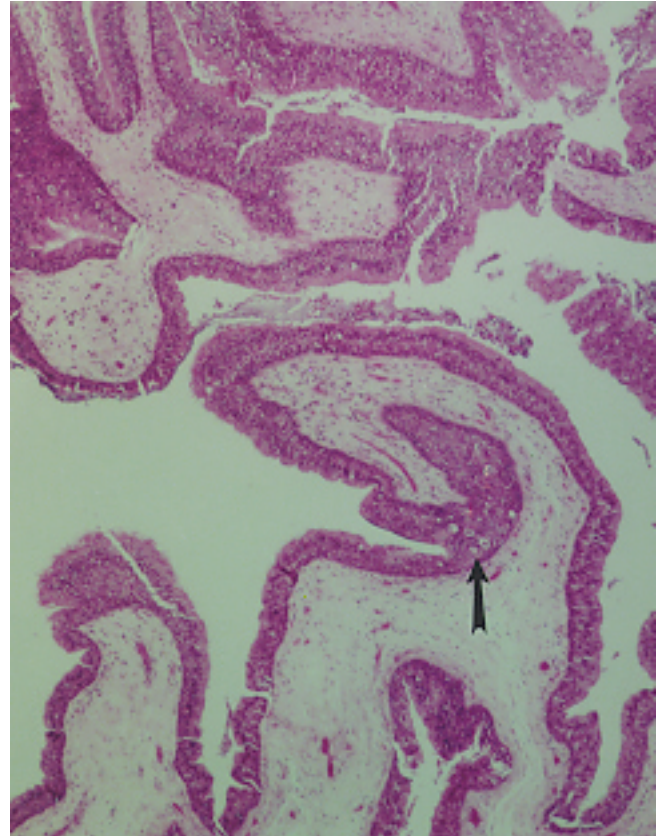
## **SINONASAL PAPILOMAS (INVERTED PAPILOMA, CYLINDRICAL CELL PAPILOMA AND EXOPHYTIC PAPILOMA)**

A true papilloma of the mucosa of the nose and paranasal sinuses, the inverted papilloma is the commonest of three types of sinonasal papilloma. It is benign but will recur if incompletely removed. Unlike nasal polyps, the inverted papilloma is almost always a unilateral lesion. It often looks dull, and reddish, not shiny and light gray like a nasal polyp. Sinonasal papillomas of the inverting and columnar type occur along the lateral wall of the nose in contrast to the exophytic fungiform sinonasal papillomas found on the nasal septum.

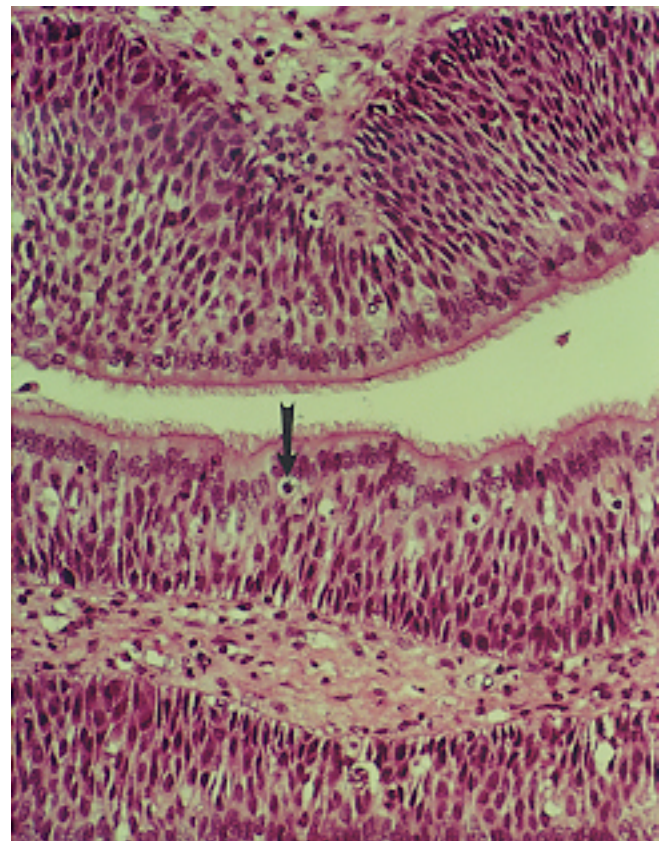
Microscopically, the epithelium of inverted papilloma varies from non-keratinized thick squamous to "transitional." The epithelium grows inwardly toward a stroma which has no glandular elements and is comprised of myxomatous or fibrous tissue with a vascular core leading into the papillary formations. Nuclear uniformity is the rule but atypia is present in some cases and malignant transformation does occur. Neutrophils permeate all layers of epithelium. A second type of sinonasal papilloma, the cylindrical cell sinonasal papilloma behaves clinically just like an inverted papilloma. Its epithelium consists of several layers of eosinophilic columnar cells, sometimes ciliated. The third type of sinonasal papilloma is the exophytic fungiform papilloma found on the mucous membrane of the nasal septum. It ordinarily is not confused clinically with inverted papilloma since the septal fungiform papilloma has visible exophytic papillary formations and is a sessile growth attached to the septum and not to the lateral wall of the nose. The epithelium is squamous or transitional. These lesions are prone to recurrence unless widely excised.

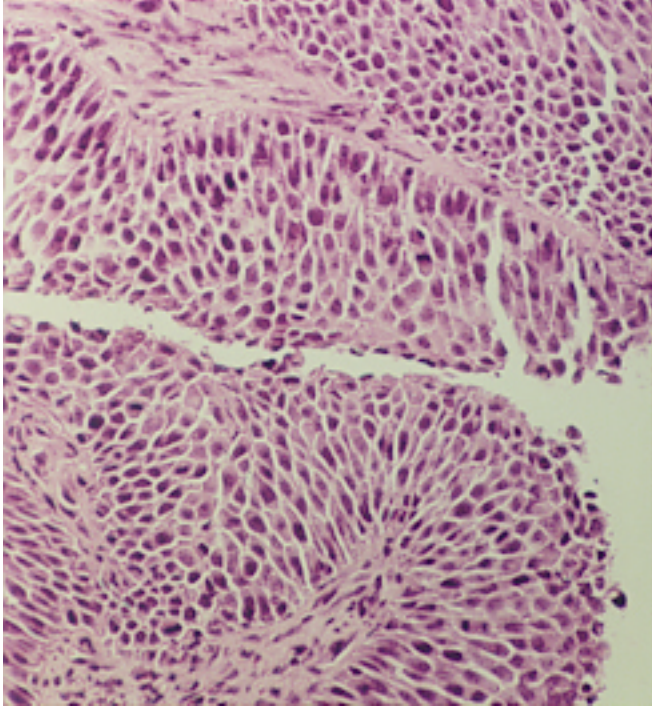
The other common papilloma of the nose, wart, is located on the skin lined portion of the nasal vestibule.

Sinonasal papilloma, maxillary sinus, cylindrical cell type. Multilayered columnar type epithelium arranged in papillomatous pattern with a myxomatous to fibrous stroma that is well demarcated from the epithelium. Small intraepithelial mucin cysts are present (arrow). These tumors have both an exophytic and inverted growth pattern.

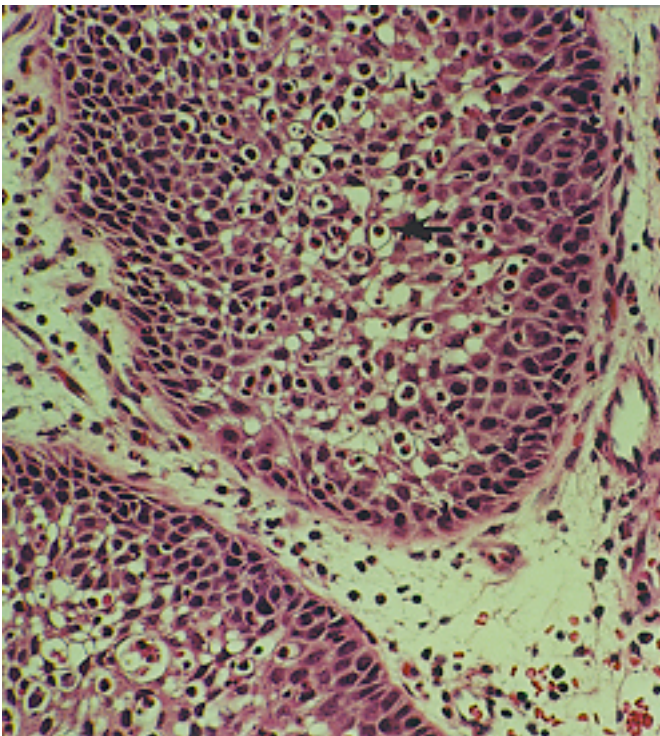


Sinonasal papilloma, maxilla, cylindrical cell type. Note cilia. Invasion of mucosa by neutrophils (arrow) is a common feature of this tumor.



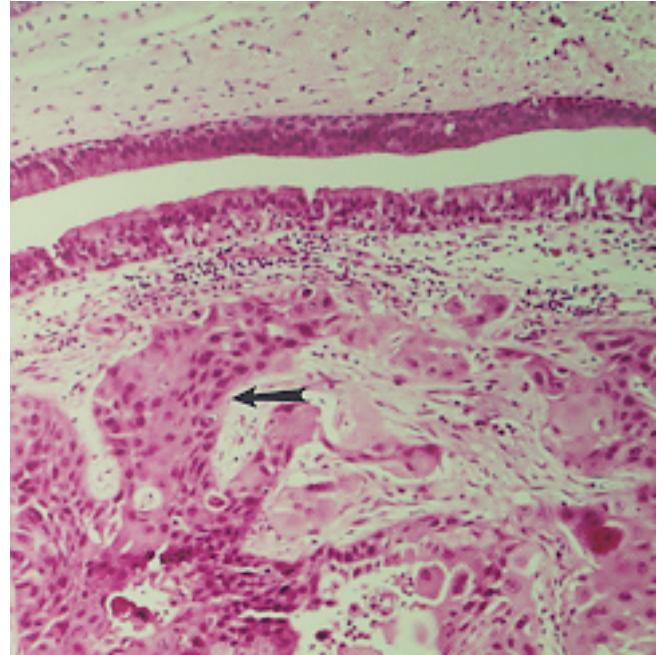


Sinonasal papilloma, ethmoid, inverted type. Dysplasia is present in the squamous mucosa.

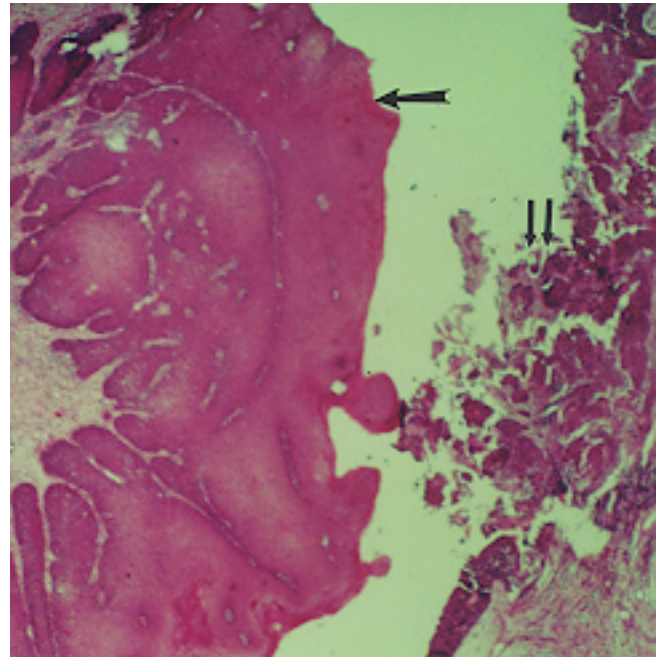


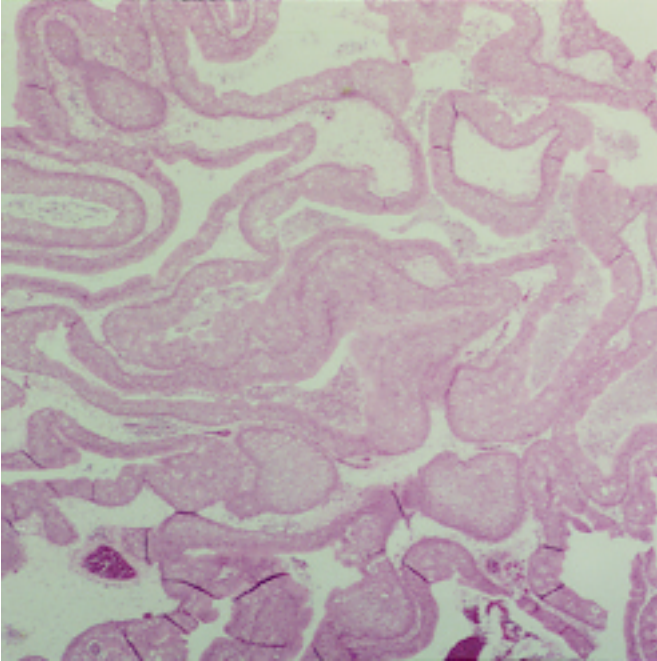
Sinonasal papilloma, ethmoid, inverted type. Note the marked neutrophilic invasion of mucosa, a common finding. Vacuolization of the neutrophil cell is a common feature of the neutrophil when it invades mucosa. Here the epithelium is squamous.

Squamous cell carcinoma (arrow), maxilla, developing in sinonasal papilloma (not identified here).

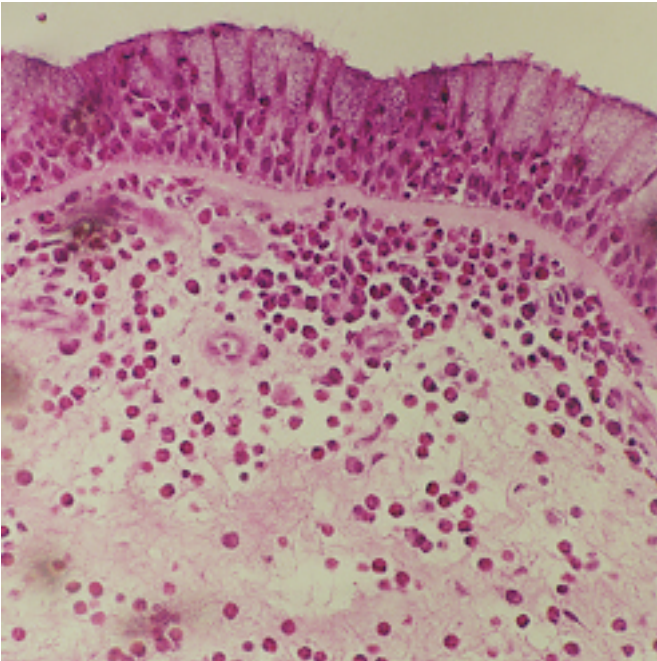


Sinonasal papilloma, ethmoid, in a bulky papillomatous tumor (large arrow), with malignant change squamous cell carcinoma (double arrows).





Inverted papilloma, low power. Typical pattern and structure that ought not to be confused with ordinary nasal polyps.



Nasal polyp, inflammatory, for comparison. The much looser stroma and shape of the nasal polyp gives it a much different appearance than the inverting papilloma. Also note the prominent basal membrane and the eosinophilia, both common to allergic polyps.

Sinonasal (Schneiderian) papilloma, exophytic (septal) type, nasal septum. Thick squamous epithelium covers fibrovascular stalks.

