

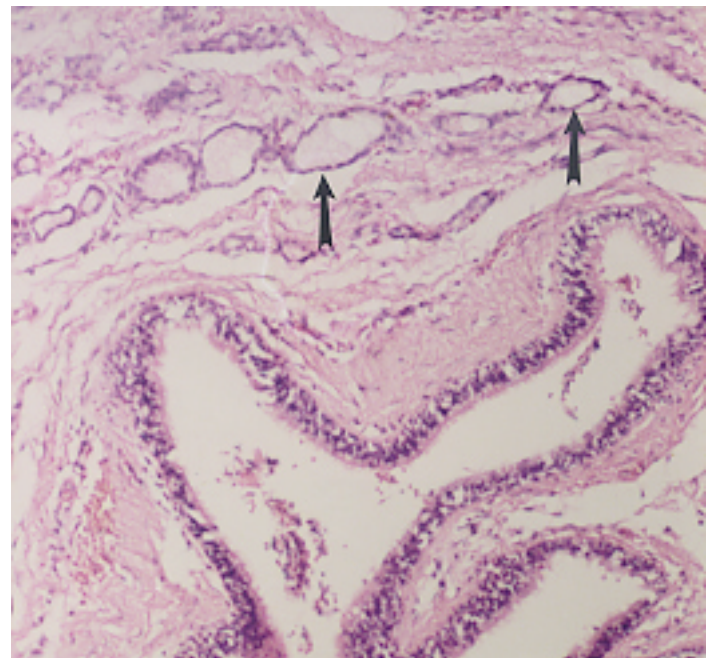
THYROGLOSSAL CYST

The thyroid gland develops at the tongue base of the embryo, and later descends in the neck along the thyroglossal duct which then becomes obliterated in the fetus. Sometimes, however, the duct, or a portion of it, persists and cystic changes in the tract produce the thyroglossal cyst—usually in the midline but sometimes a little lateral to the midline, and almost always at the thyrohyoid interval. The duct or cyst frequently becomes infected and drains onto the skin, healing and opening from time to time, and thereby forming a thyroglossal tract fistula. While a fistula to the skin is common, persistence of the tract to the foramen cecum is not.

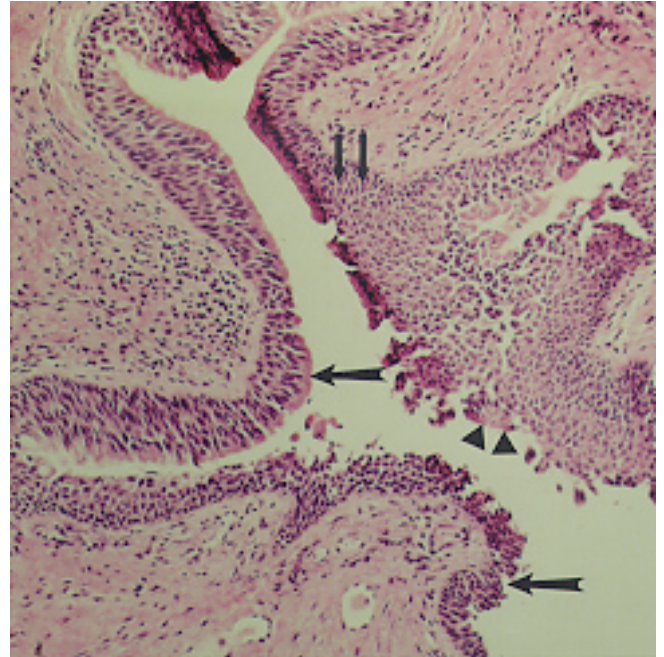
Rarely, the thyroid, or a portion of it, remains at the foramen cecum and is called lingual thyroid.

Microscopically, the thyroglossal cyst may be lined by respiratory or squamous epithelium, or both, and if the cyst becomes infected the epithelium may be lost. Aberrant thyroid tissue adjacent to the cyst is present about half the time with acini showing low cuboidal epithelium and containing colloid.

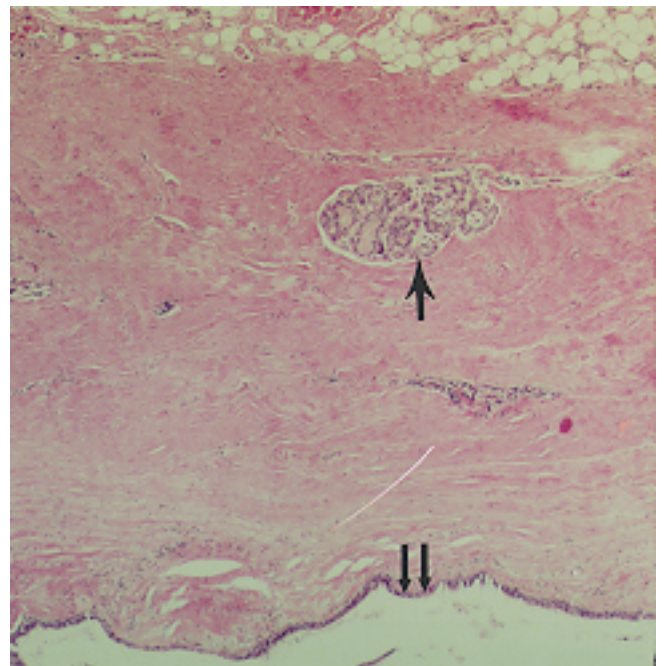
Thyroglossal cyst. Thyroid follicles with colloid (arrows) are seen adjacent to respiratory epithelium of a cyst. Thyroid tissue can be found in about half of the cases of thyroglossal cyst.

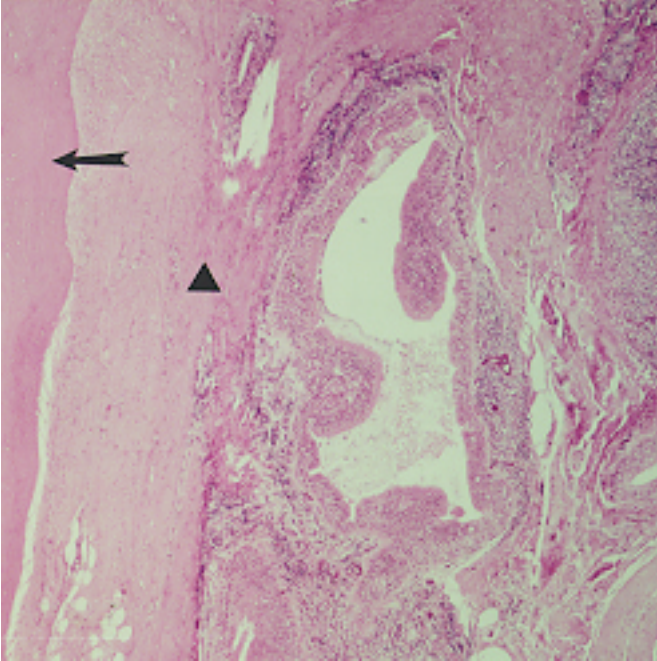


Thyroglossal cyst. Respiratory (single arrow) and squamous epithelium (double arrows) with an area of ulceration (triangles). Chronic subepithelial inflammation and thick fibrous tissue indicate probable previous infection.

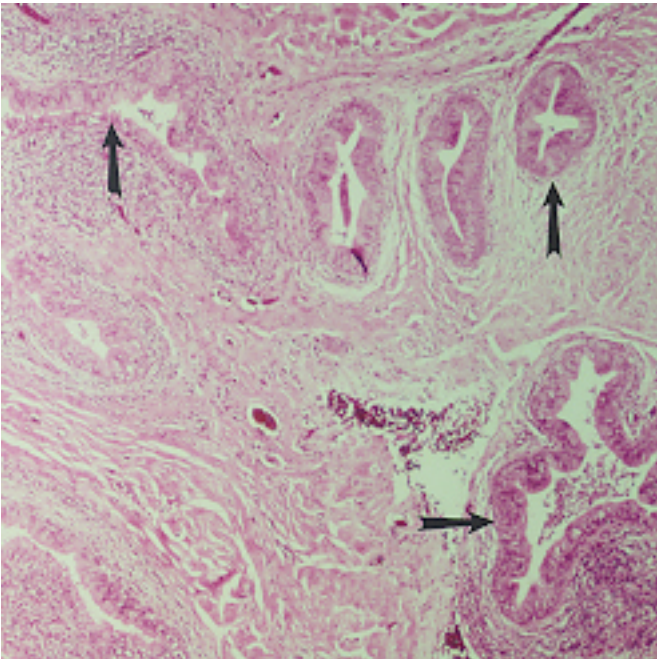


Thyroglossal cyst, 14 year old boy, thick fibrous wall indicating patient's repeated infections. Respiratory epithelium (double arrows) and nodule of thyroid tissue (large arrow).



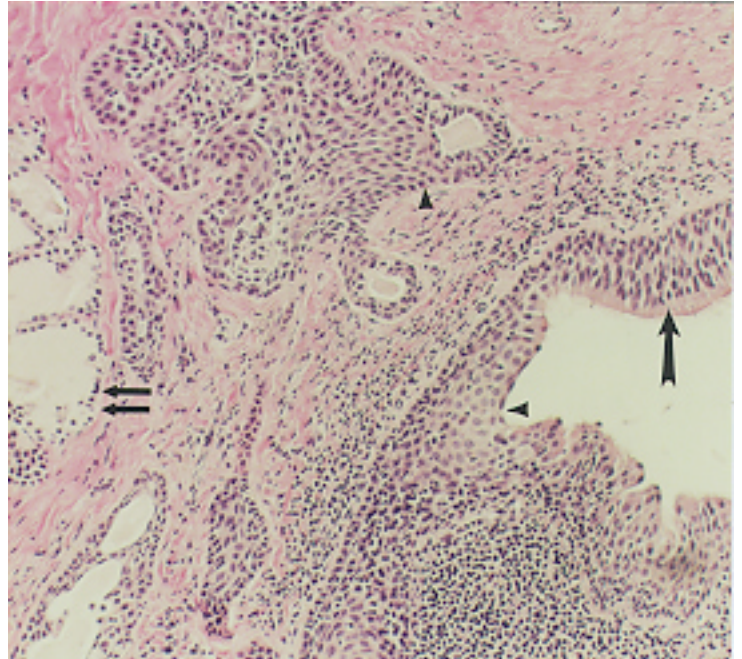


Thyroglossal cyst, shows cyst with papillary formation, adjacent fibrous tissue (triangle) and section of hyoid bone (arrow) removed in the so-called Sistrunk operation.



Thyroglossal cyst, Remnants of thyroglossal cyst (arrows) with respiratory lining in previously operated patient. Note chronic inflammation and dense scarring.

Thyroglossal cyst. Respiratory (arrow) and squamous epithelium (triangles) with chronic inflammatory reaction. Thyroid follicles (double arrows) are present.



Foramen cecum. This duct with columnar epithelium found incidentally in lingual tonsil tissue at base of tongue may represent the proximal end of a patent thyroglossal duct.



CLINICAL ASPECTS

Thyroglossal cysts must be distinguished clinically from branchial cysts and other cysts and tumors of the neck. The thyroglossal cyst almost always is located in or near the midline and at the thyrohyoid interval. Except for squamous inclusion cysts, other neck masses are more lateral.

Because the hyoid bone forms in close association with the thyroglossal duct, the surgeon excises the central portion of the hyoid (Sistrunk operation) to be sure of removing all of the tract. It is unusual to be able to trace the thyroglossal duct any more proximal than the hyoid bone. Recurrence of the cyst is common because of incomplete removal.

Carcinomatous formation in a thyroglossal cyst is rare.