

Case-Based Diagnosis Training

Patient:

Gender: *Female*

Age: *81 years old*

Clinical history and working diagnosis on the referral:

In 2015, the patient went to the maxillofacial surgery department with an ulcerated skin tumor of the cheek. In the preoperative tomography examination, a tumor that infiltrated the masseter muscle and a lingual mass (pic 1,2) was detected. The surgical resection of the skin tumor was performed. In the histopathological specimen examination the carcinoma basocellulare was found. In the performed CT, US and MRI examinations through next two years a lingual mass had similar diameter with strong contrast enhancement and a linear structure leading to the thyroid gland (pic 4,5,6,7,8,9,10). Diagnosis : lingual thyroid with the thyroglossal duct.

Normal variant:

The thyroid gland migrates from the foramen cecum at the midline posterior tongue to the paramidline location in the lower neck via the path of the thyroglossal duct. The thyroglossal duct normally involutes during the 5th or 6th week of gestation.

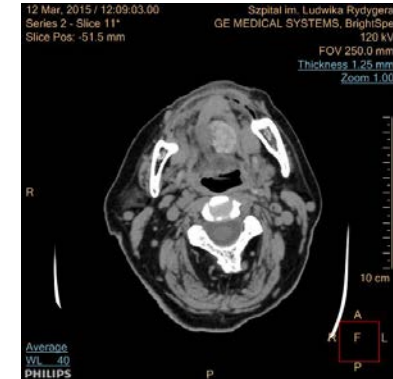
Diagnostic features:

- Diagnostic features:
- Well-circumscribed ovoid mass in base of tongue.
- Imaging features similar to normal thyroid tissue
- High density on NECT due to iodine content

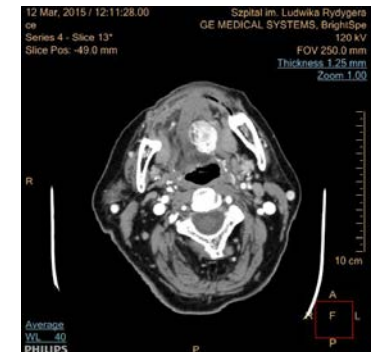
Submitted by:

A. Salwa

Please add pictures (radiograph, ultrasound, CT or MR images) and schematic drawing of the developmental process *if applicable* by clicking on the symbols within the boxes below:



Picture 1: Preoperative unenhanced CT scan (March 2015).



Picture 2: Preoperative contrast enhanced CT scan (March 2015).

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Additional information

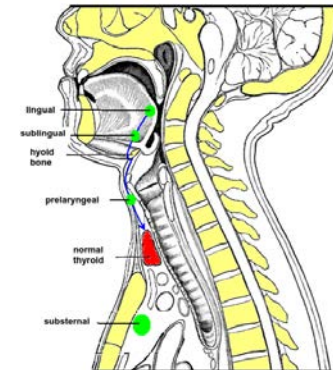
In case you want to submit further pictures, please add these (radiograph, ultrasound, CT or MR images) and schematic drawing of the developmental process *if applicable* by clicking on the symbols within the boxes below:

Underlying step in embryological development:

A lingual thyroid results from arrest of the migration of the thyroid precursor from foramen caecum down to its normal location. Thyroid tissue may be found anywhere along the course of the thyroglossal duct, but thyroid tissue located at the base of the tongue represents 90% of all cases of ectopic thyroid.

Potential differential diagnostic entities:

- Venous malformation
- Hemangioma
- Prominent tonsillar tissue
- Non-Hodgkin lymphoma, lingual tonsil



Picture 3: Thyroid gland migration route and potential locations of ectopic tissue.

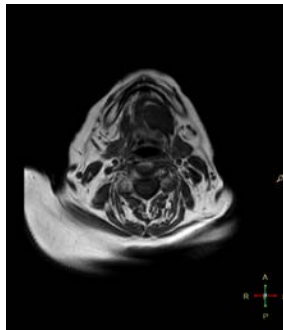


Picture 4: Postoperative contrast enhanced CT scans (March 2016)

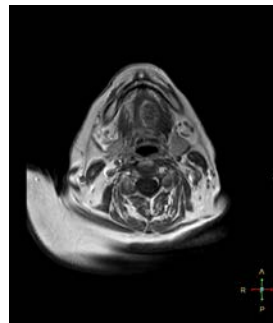
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Additional pictures

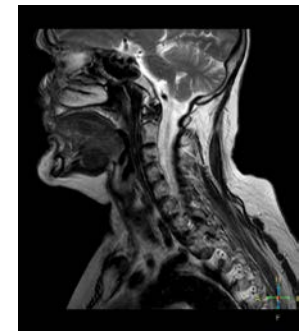
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Picture 5: MR image (T1W_SE_TRA) – June 2015



Picture 6: Contrast enhanced MR image (T1W_SE_TRA +C) – June 2015



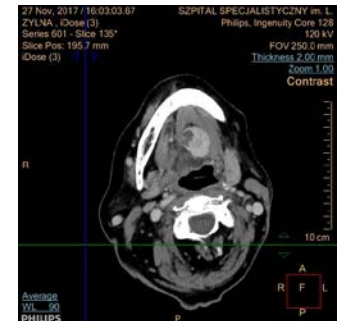
Picture 7: MR image (T2W_TSE_sag) – June 2015



Picture 8: US image – September 2017



Picture 9: Unenhanced CT scan – November 2017



Picture 10: Enhanced, venous phase CT scan – November 2017