

General Surgery



Subject: _____

Thyroglossal duct cyst

Group no: _____

Done by: _____

Sadeel Alfaqeer



Dr. Sohail Bakkar

Asst. Prof. of Endocrine Surgery

The Hashemite University

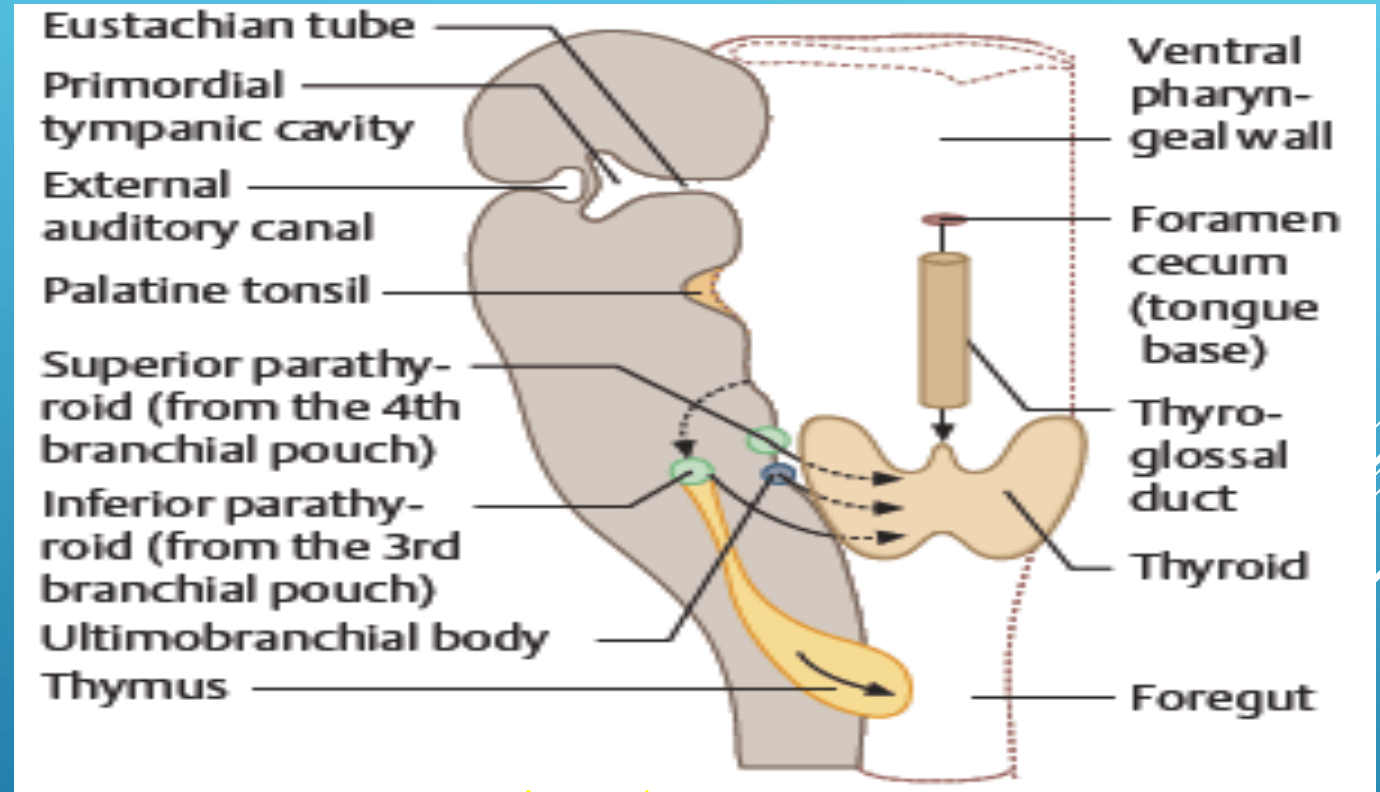
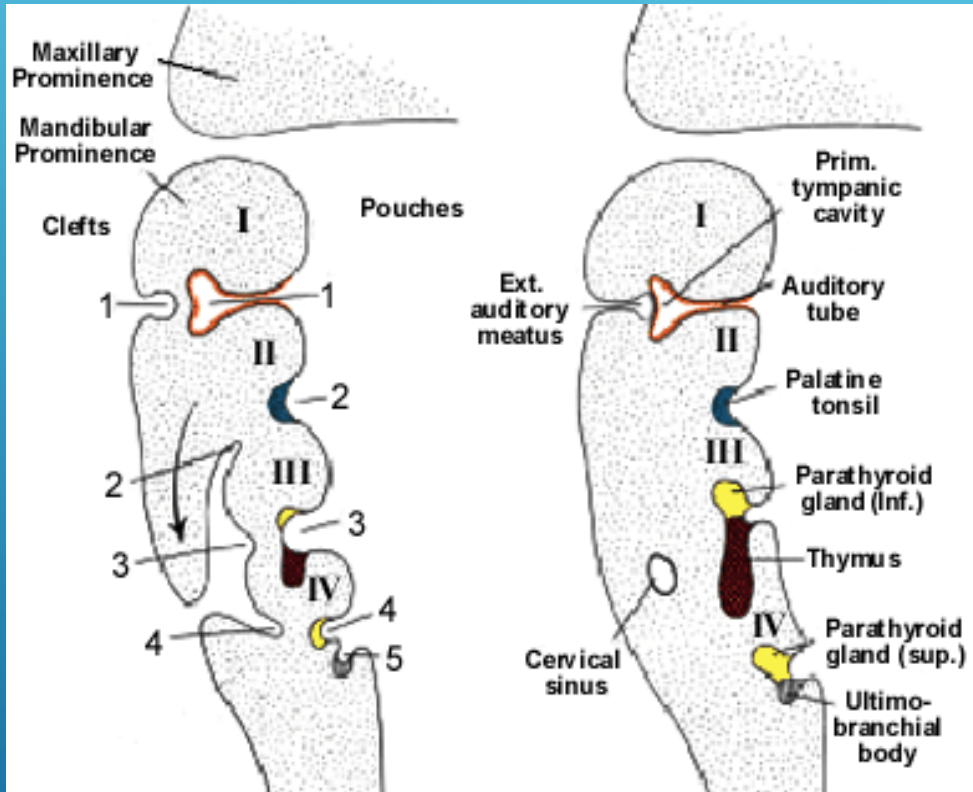
The lateral component of thyroid gland develop from 4th pharyngeal pouch along superior parathyroid

المكون الجانبي للغدة الدرقي يأتي من... 4th م... وكذلك
غارات الدرقي العلوية.

but the median part of thyroid gland it develops from the base of tongue, notice that the foramen Cecum of the Tongue is the site where thyroid gland originate & the thyroglossal duct is the pathway along which the gland migrates to it's final location in the neck

Thyroglossal duct: it is a path that develops during embryogenesis to guide the migration/development of the median part of thyroid gland.

At birth; this duct will disappear, if this duct fail to disappear & remains after birth → persistent Thyroglossal duct → may undergo cystic degeneration (filling of it's ball until development of cys) → Thyroglossal duct cyst, is the most common congenital cervical anomaly.



Lump located in the midline of the neck, mostly at the level of hyoid bone and characteristically thyroglossal duct during embryogenesis arises from the bases of tongue, so if we open the mouth & protruded it forward then this lump (cyst) will move upward upon protrusion of tongue & this very imp to seen in PE.

مراقب ممکنه تکه small cyst ویکه صعب نقدر نفشوف الکلت بتعمرش لغت مع الطهه Protusion of tongue

in this case, place your examining finger on the mass and you might appreciate movement by palpation

Most common congenital cervical anomaly

Most common developmental anomaly of the thyroid gland

typically develops due to persistence thyroglossal duct
that undergo cystic degeneration & M/C location at or just
below the level of hyoid bone

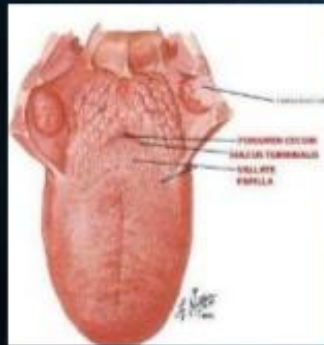
K) MOVEMENT WITH TONGUE PROTRUSION:

Halmark

Movement with tongue protrusion in case of mid line neck swellings
Eg- Thyroglossal cyst & Thyroglossal Fistula.

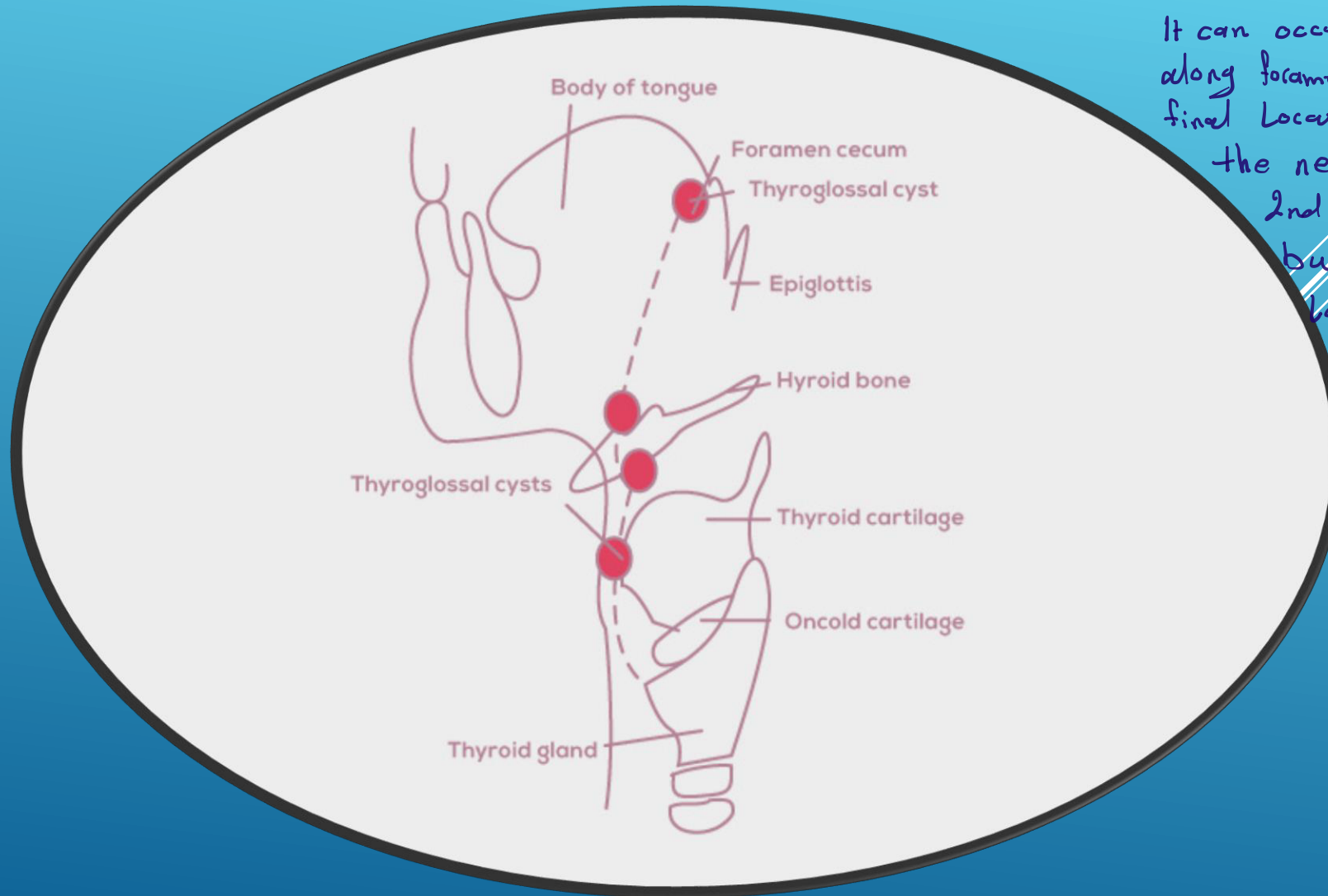
Why Swelling Moves with Tongue Protrusion?

- ★ Because the swelling is Attached to
Foramen Caecum of Posterior 2/3rds of the tongue



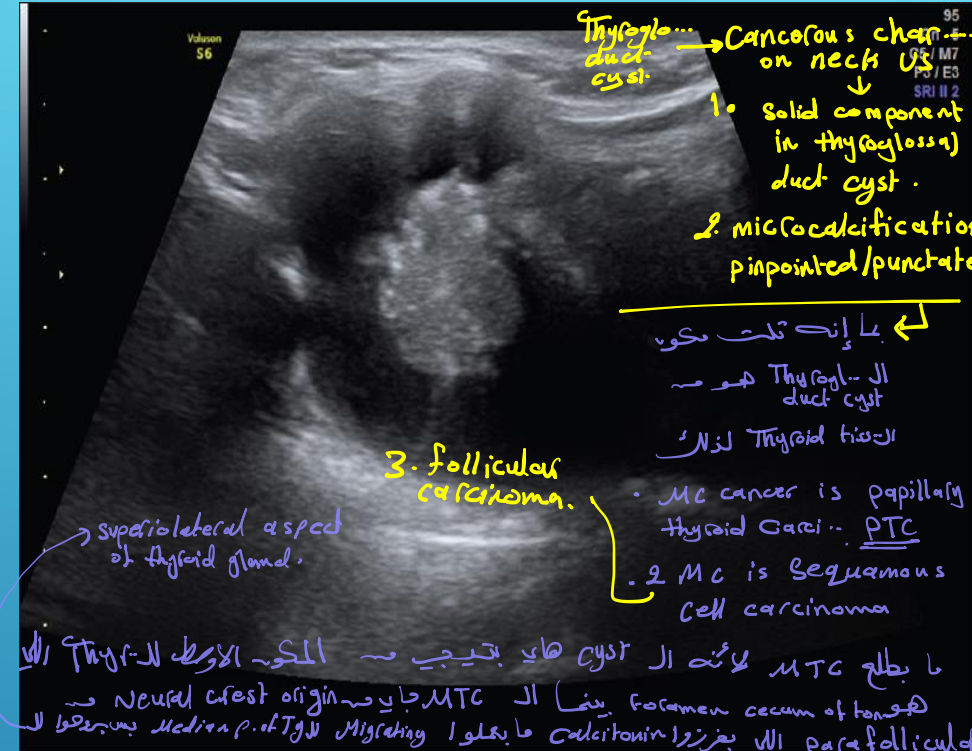
Most common location: midline at or below the hyoid bone

2nd most common location: suprahyoid



It can occur in any other location along foramen cecum of tongue to final location of thyroid gland in the neck at the level of 2nd & 3rd tracheal rings but the most common location is at or below level of hyoid bone & The second most common is above hyoid bone.

Approach :



Cyst : hypoechoic (black)

round hypo-structure (cyst) above the level of thyroid gland, so it doesn't arise from thyroid gland → common diagnosis.

Diagnosis → mainly clinical diagnosis. & The characteristic physical finding upward movement by

but to Confirm the diagnosis = neck US

- Evaluate for suspicious features (micro-calcification and a mural component) - FNAC

* Other benefit of neck US :-

Determine whether it only a pure cystic structure that not suspicious for being malignant or not

وفي فحائض سرطان عنق
 هات الخصائص
 بالسرقة اليك
 رويها للكتاب الامن والموه الغريب

once you have clinical diagnosis of ...cyst $\rightarrow$ US $\begin{cases} \text{to confirm dx} \\ \text{to exclude possibility of malignancy} \end{cases}$

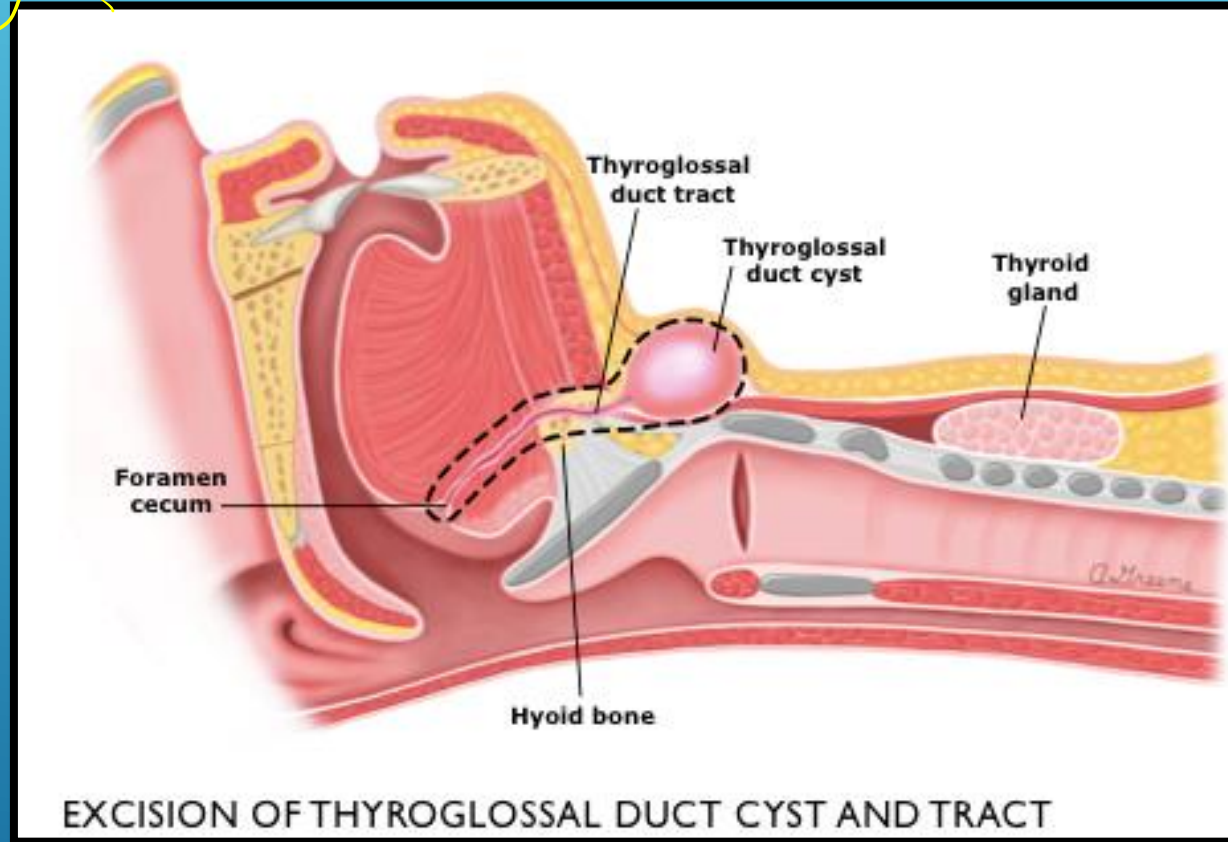
Risk of infection

Risk of sinus formation related to cyst rupture “Midline opening with or without a palpable cyst”

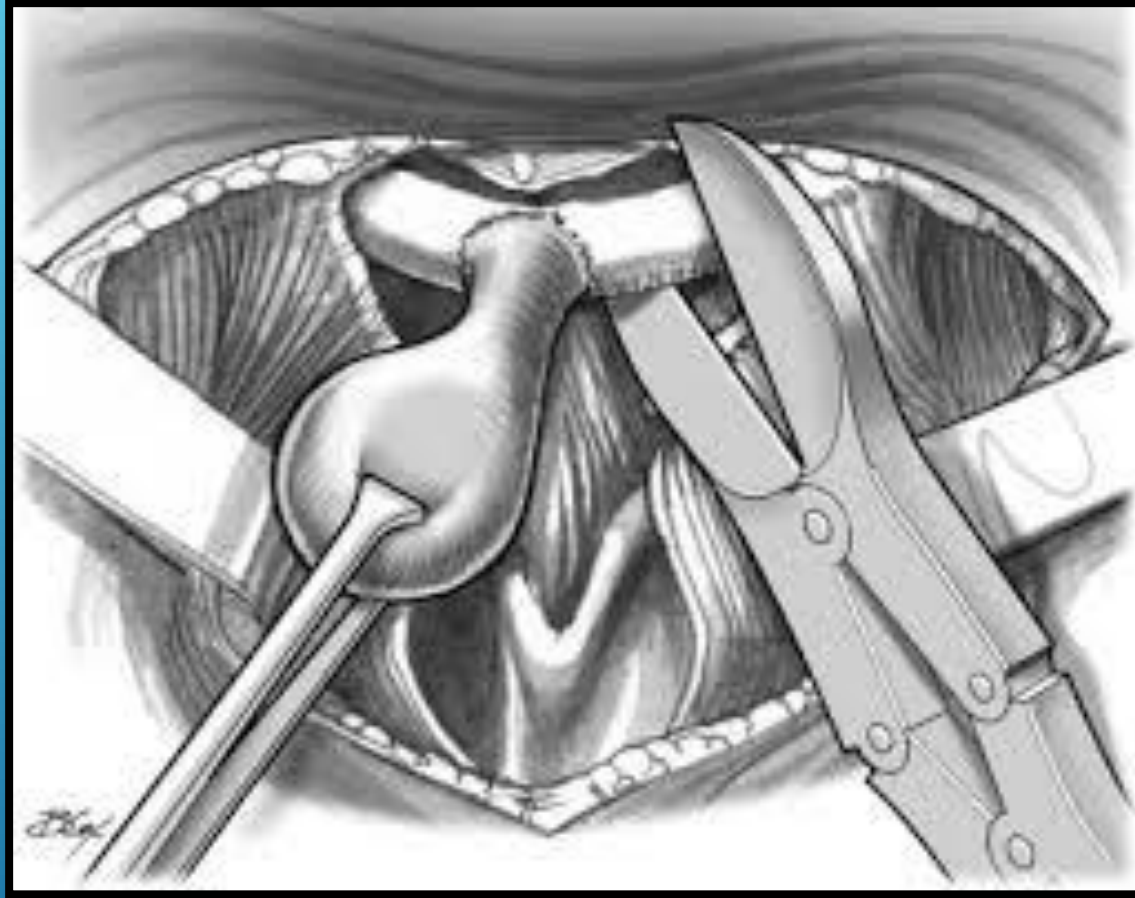
Risk of malignancy < 2% ; most common is PTC 2nd is SCC / MTC not reported

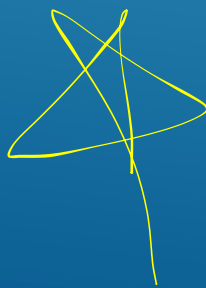
If we suspect a malignancy due to presence of calcification or solid component then we will perform a FNAC to see whether it is malignant or not

Sistrunk's Procedure



العلاج ، قديماً كان الجراح يفتح عال cyst و يشيلها cystectomy لاحقاً وجدوا انه رح نترك باقي ال thyroglossal duct و هو معرض يصيرله cystic degeneration بنسبة ٦٠٪ ، لذلك لازم نشيل السست وباقي المسار تااعها ، اللسان والجزء الوسطي من ال hyoid bone فاحنا بنقص الجزء الوسطي من العظمة لغاية ال base of the tongue وهذا ال sistrunk's procedure نسبة الى اسم العالم و سبب انه نشيلها و خافين من الريكرنس مش بس بسبب المايليغننسي وهي نسبة قليلة اقل من ٢٪ بس ممكن يصير L.N infection و مضاعفات abscess وإذا انفجرت بصير sinus or fistulas formation



 **Reduces recurrence from up to 60% to $< 10\%$**

Thyroglossal Duct Cyst

- Most common congenital neck mass (70%)
- 50% present before age 20
- Midline (75%) or near midline (25%)
- Usually just inferior to hyoid bone (65%) or at level of it
- Elevates on swallowing/protrusion of tongue By visualisation or palpation
- Treatment is surgical removal (Sis trunk) after resolution of any infection

The risk of malignant degeneration is rare , it less than 2% , the most common cancer is papillary carcinoma followed by squamous cell carcinoma , if you suspect malignant do FNAC

