

أهلا

يُمنع أخذ السليفات بدون إذن المحرر واي اجراء يخالف ذلك يقع تحت طائلة المسؤولية القانونية جميع المعلومات للاستخدام التعليمي فقط



الأستاذ الدكتور يوسف حسين

كلية الطب - جامعة مؤتة - الأردن

دكتوراه من جامعة كولونيا المانيا

اليوتيوب د. يوسف حسين

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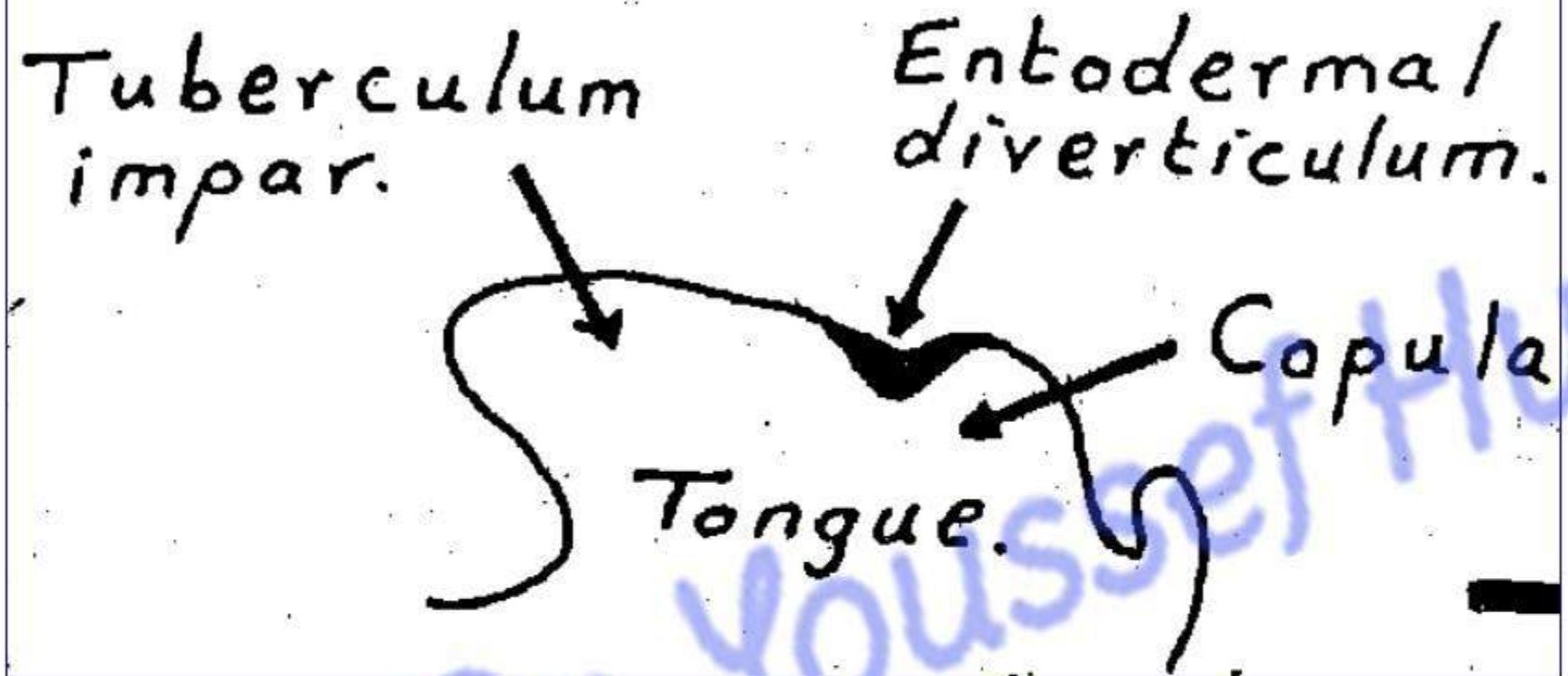
الواتس 00201224904207

dr\_youssefhussein@yahoo.com

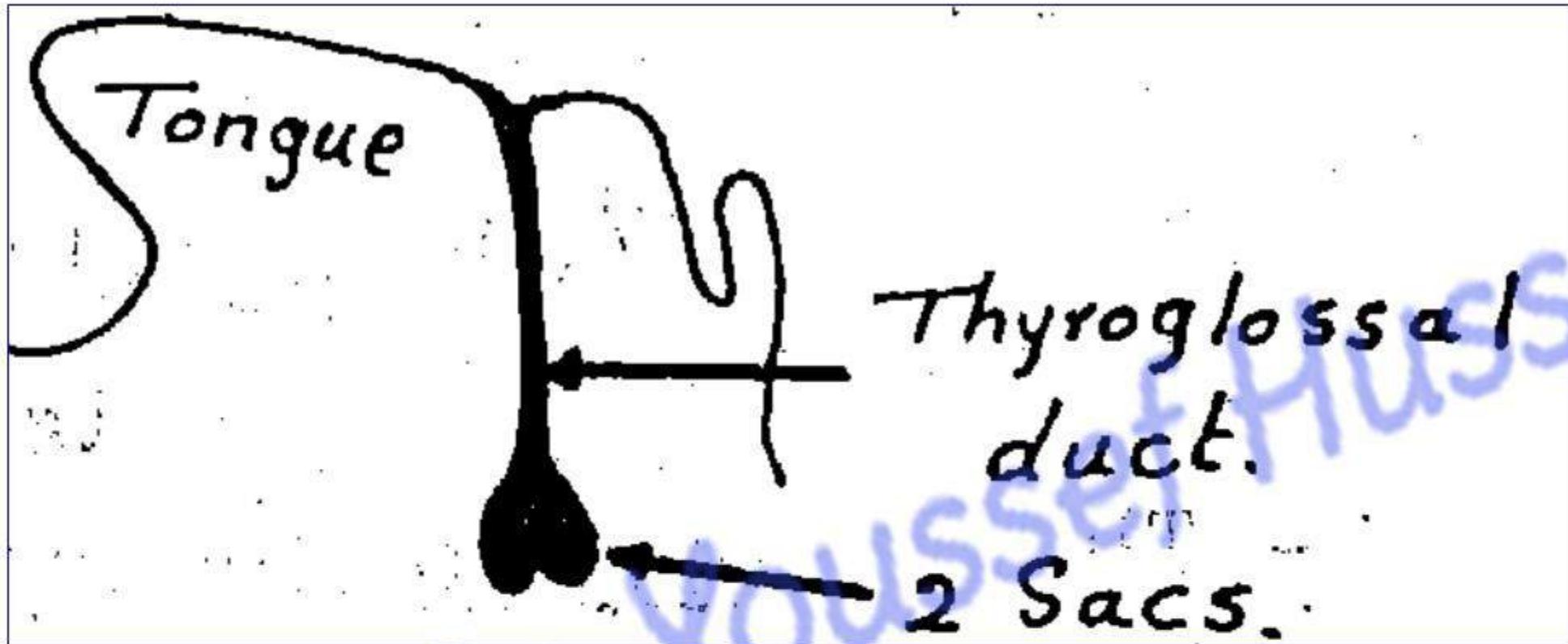
# Development of Thyroid gland

Prof.

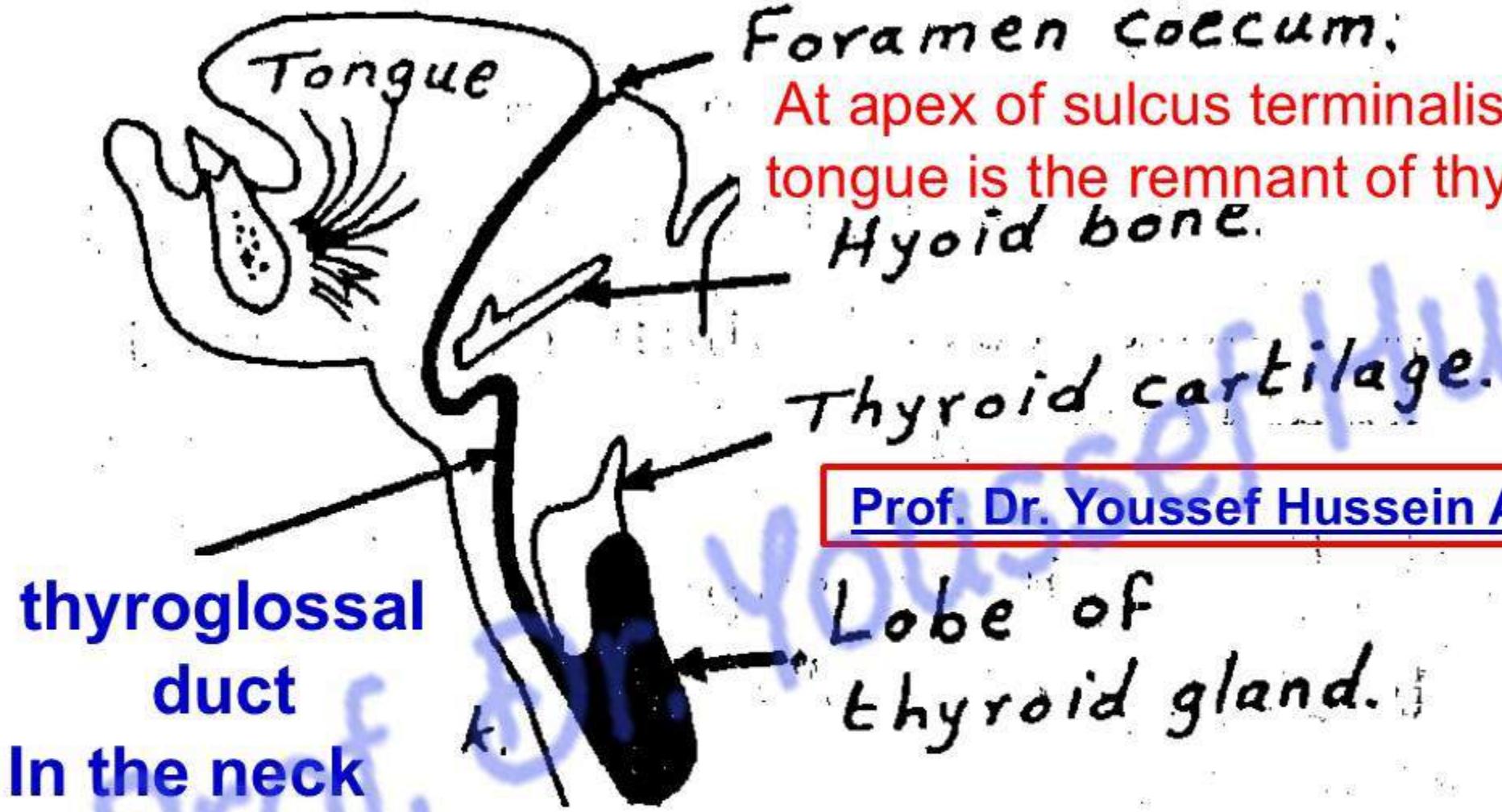
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- **Endodermal diverticulum** develops from **at the** developing **tongue** between the **tuberculum impar** and **copula of His**.



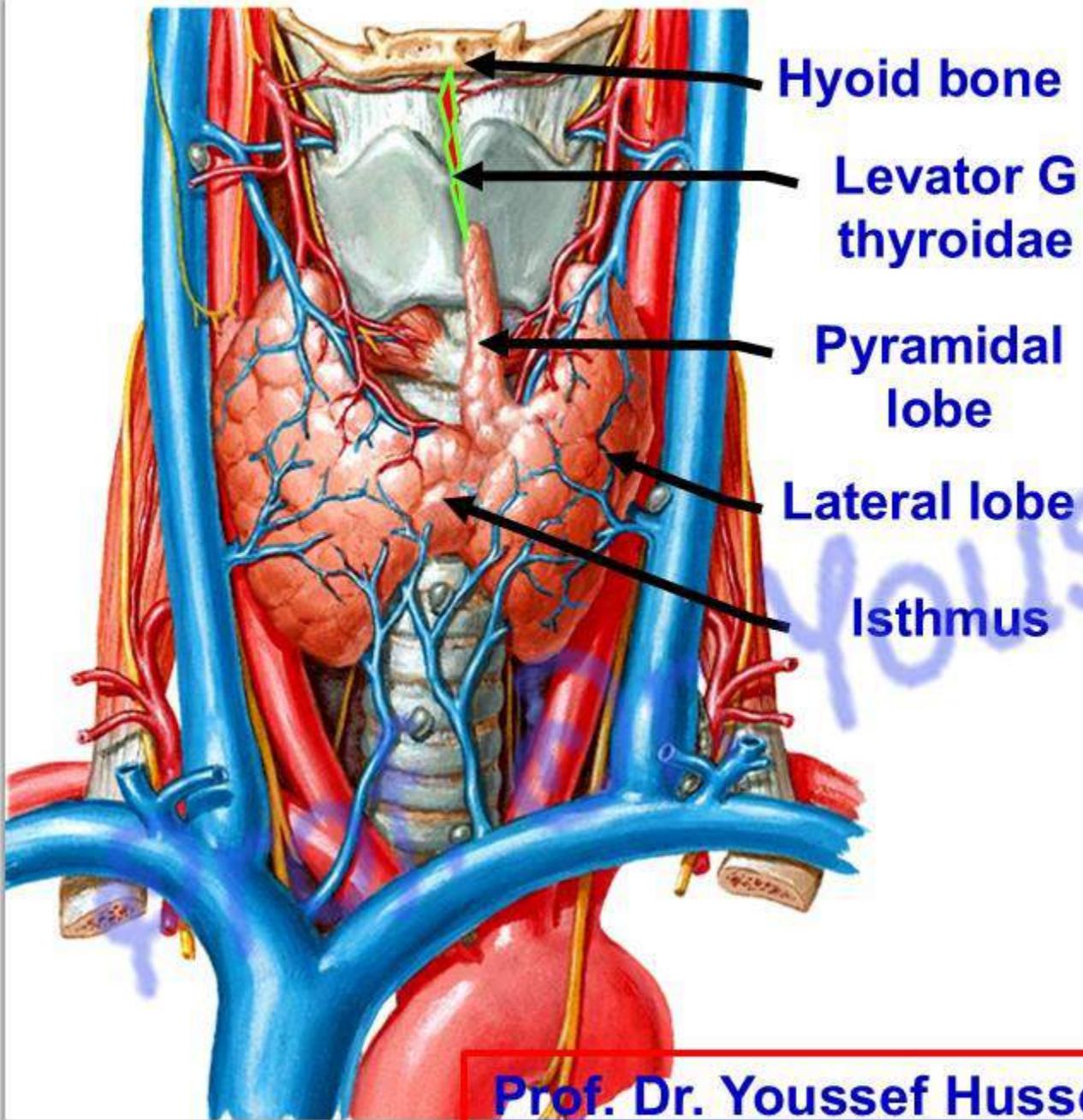
- The diverticulum elongates caudally in middle line of neck in front developing laryngotracheal tube forming **thyroglossal duct**.
- The distal end dilates and divides into 2 sacs.



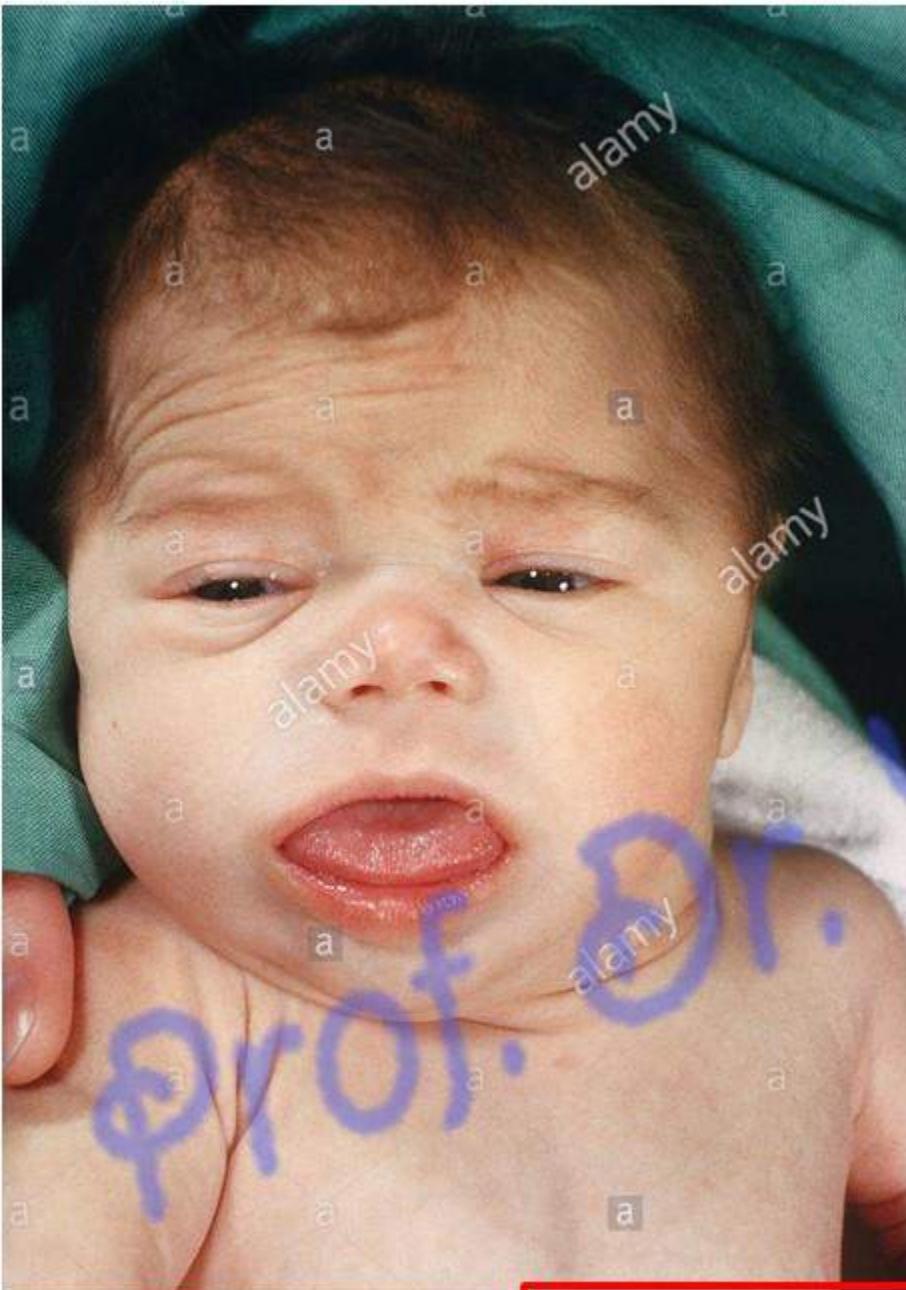
**thyroglossal  
duct**  
**In the neck**

- The **cavities of 2 sacs** become filled with cells derived from their wall to form the **2 thyroid lobes and isthmus**.
- The 4<sup>th</sup> pharyngeal pouches gives parafollicular C-cells.

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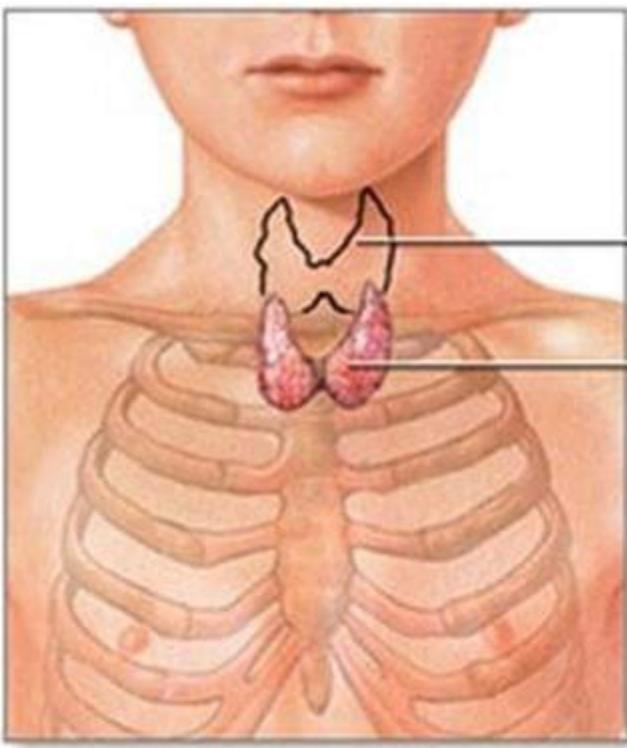


- a- The proximal part of the thyroglossal duct is degenerated.
- b- The cells at the distal end of the duct proliferate to form pyramidal lobe.
- C- The distal part of the duct persists as fibrous cord called **levator glandulae thyroidea** that attached to the hyoid bone.



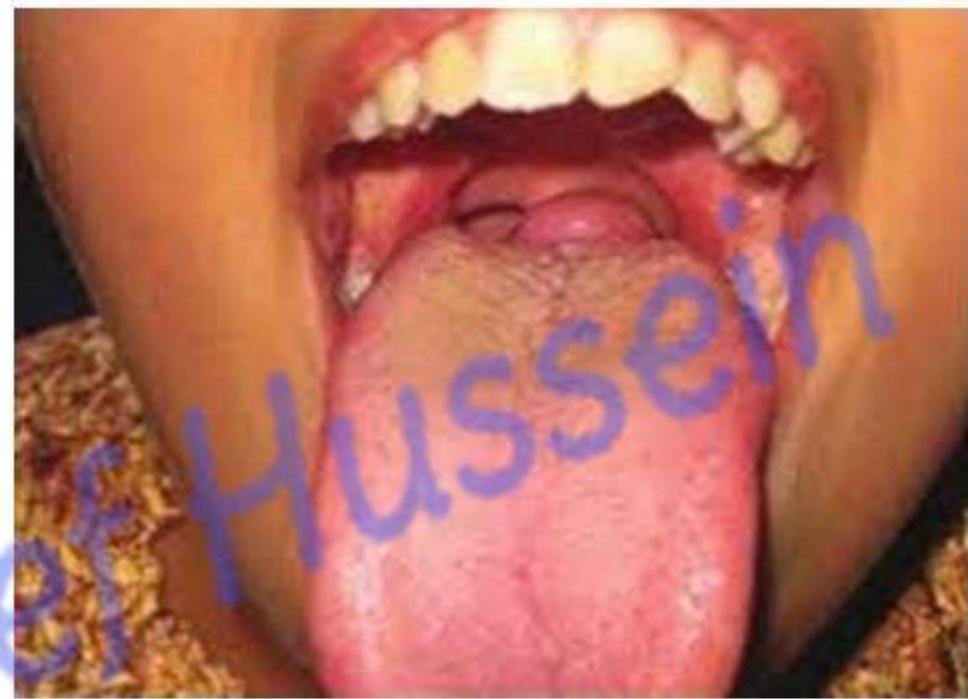
## \*\* Congenital anomalies of the thyroid gland:

- **Agenesis**, failure of development leading to **cretinism**.
- **Hypogenesis**, small gland leads to **cretinism**.



Normal location  
of thyroid gland

Retrosternal  
thyroid



### \*\* Congenital anomalies of thyroid gland:

- **Ectopic thyroid**; It founds at any site rather than its normal site;
- **Lingual thyroid**: due to failure of descend.
- **Retrosternal** (behind the sternum): due to excess descend of the gland.

- **Abnormalities of the thyroglossal duct:**
- a- Persistence of the proximal part
- b- **Thyroglossal cyst:** part of the thyroglossal duct dilated.
- c- **Thyroglossal sinus:** rupture of the cyst in front of neck.



dr\_youssefhussein@yahoo.com

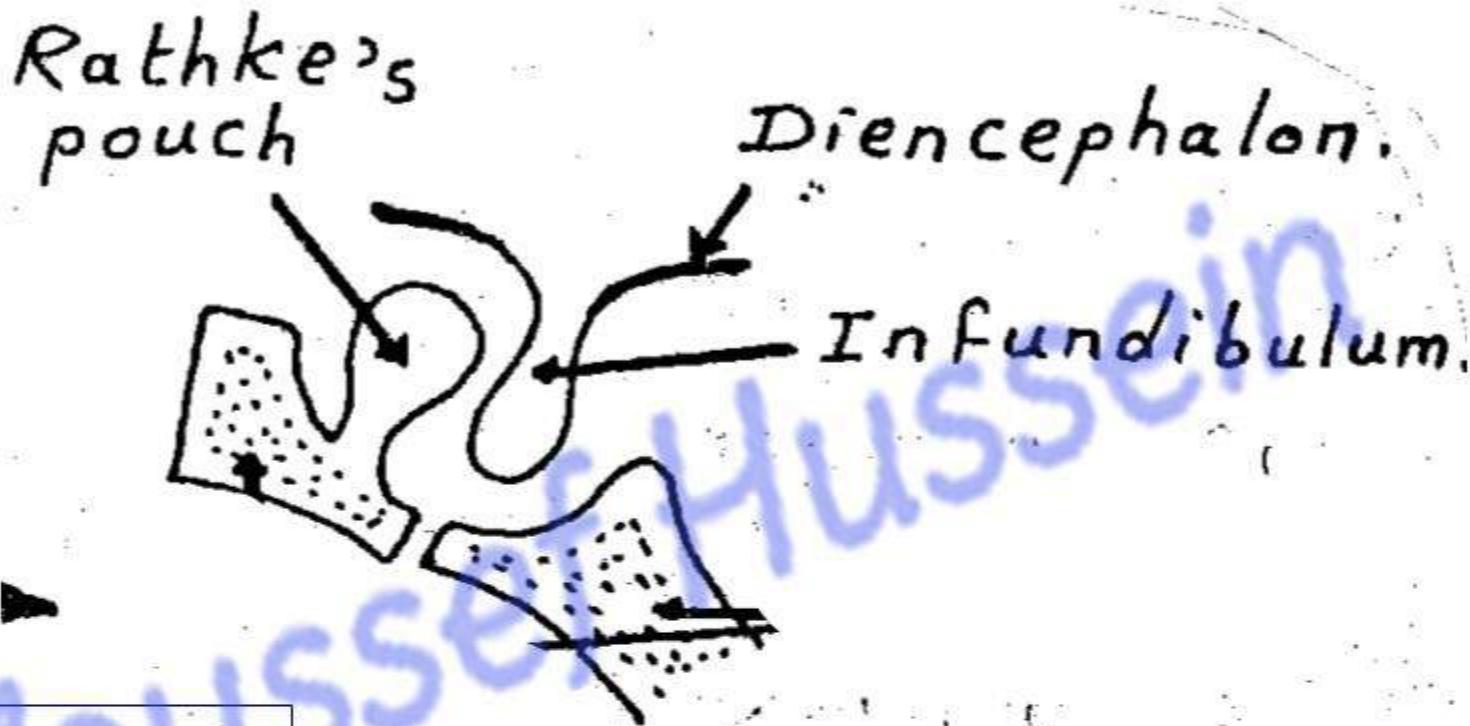
# Development of pituitary gland

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\* A small diverticulum projects downward from the floor of the diencephalon called **Infundibulum (ectoderm)**.

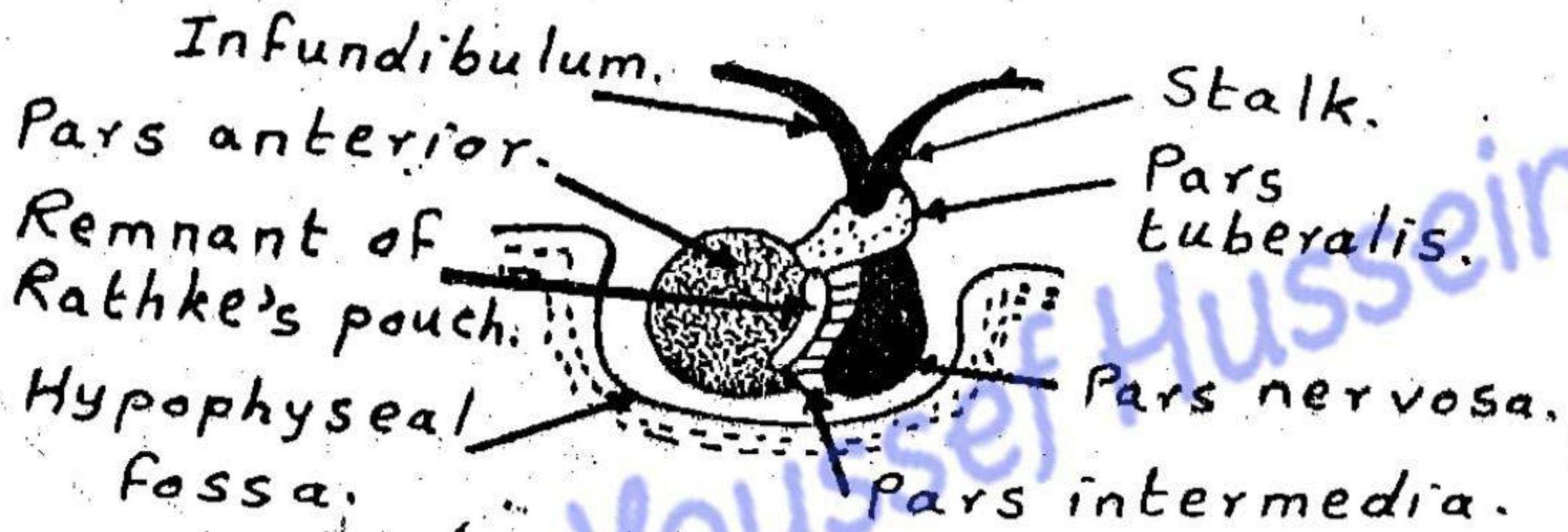
- A small pouch projects upward from the roof of the primitive mouth in front of the infundibulum called **Rathke's pouch (ectoderm)**.



Rathke's vesicle.



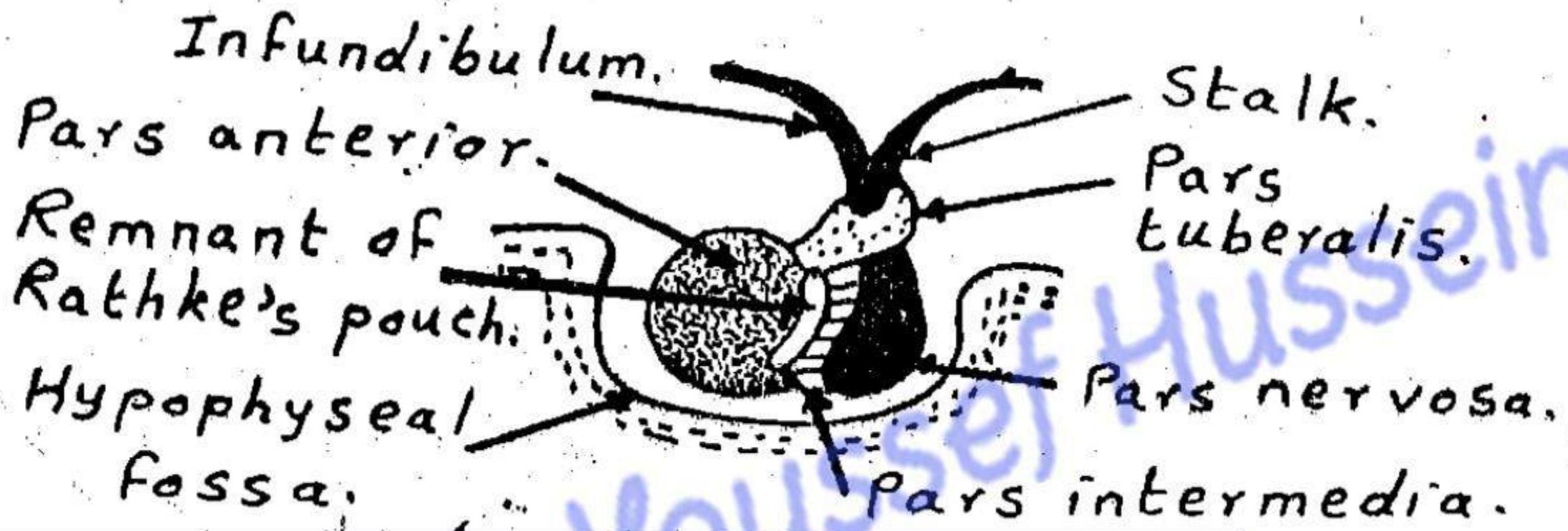
- The pouch separated from the roof of the mouth called Rathke's vesicle or cyst



**a- Distal part of infundibulum dilates and later on becomes solid to form posterior lobe (pars nervosa, neurohypophysis)**

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**b- Proximal part remains open and forms pituitary stalk that connects posterior lobe with the infundibulum of hypothalamus.**



- **Anterior wall** of the **Rathke's cyst** proliferates rapidly and becomes thick forming **anterior lobe (pars anterior, adenohypophysis)**
- **The posterior wall** grows slowly forming **Pars intermedia**.
- An elongation from upper part surrounding pituitary stalk forming **Pars tuberalis**.

**\* Congenital anomalies of the pituitary glands**

**\* Ectopic pituitary glands**

**\* Agenesis or hypogenesis of pituitary gland**

**\* Congenital tumor of pituitary gland  
(Craniopharyngioma)**

\* A small diverticulum projects downward from the floor of the diencephalon called **Infundibulum (ectoderm)**.

- A small pouch projects upward from the roof of the primitive mouth in front of the infundibulum called **Rathke's pouch (ectoderm)**.

