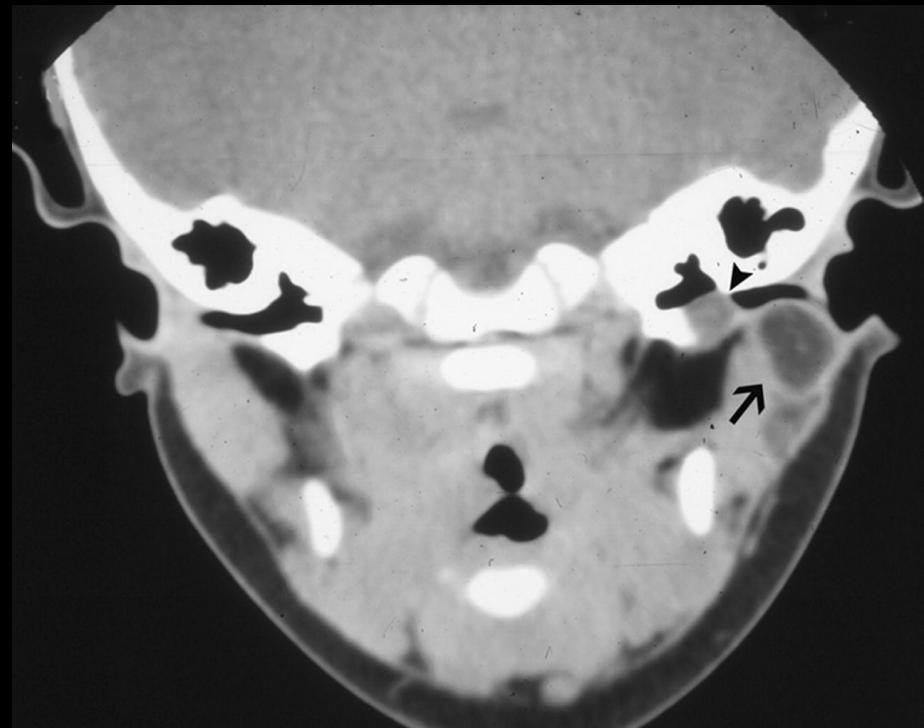


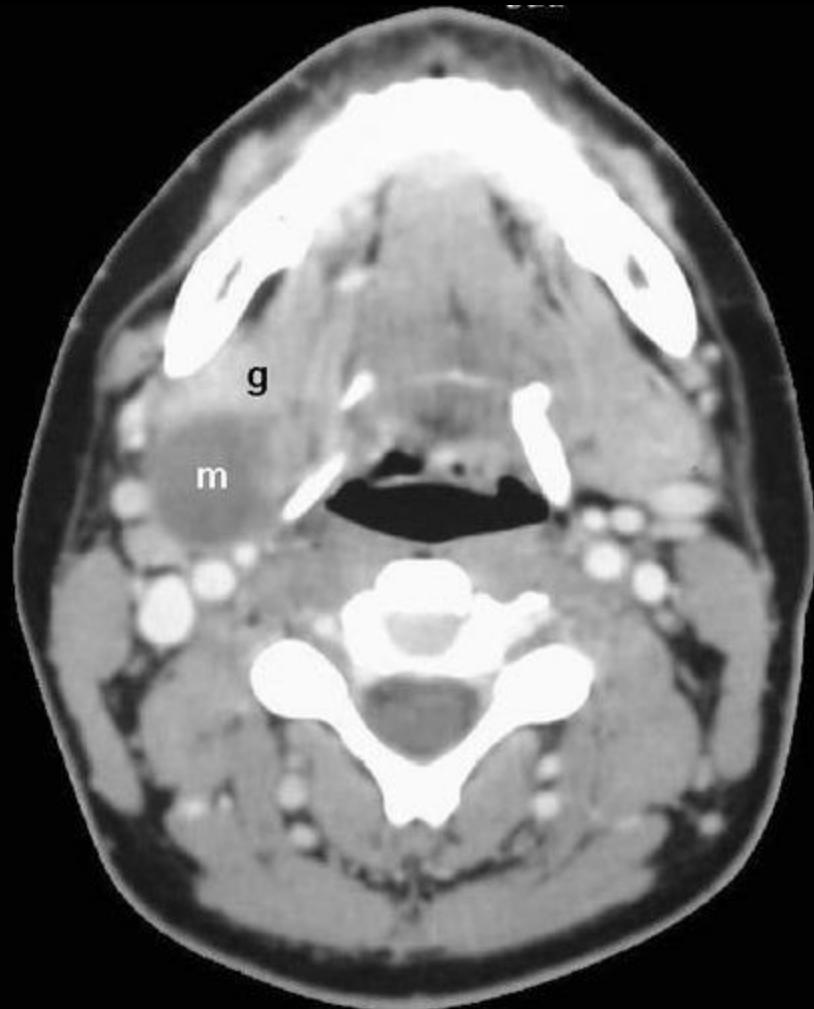
# First branchial cleft cyst, type I

- cystic mass in the parotid gland (arrow) that is connected with a smaller cyst in the external auditory canal at the osseocartilaginous junction (arrowhead).



# First branchial cleft cyst, type II

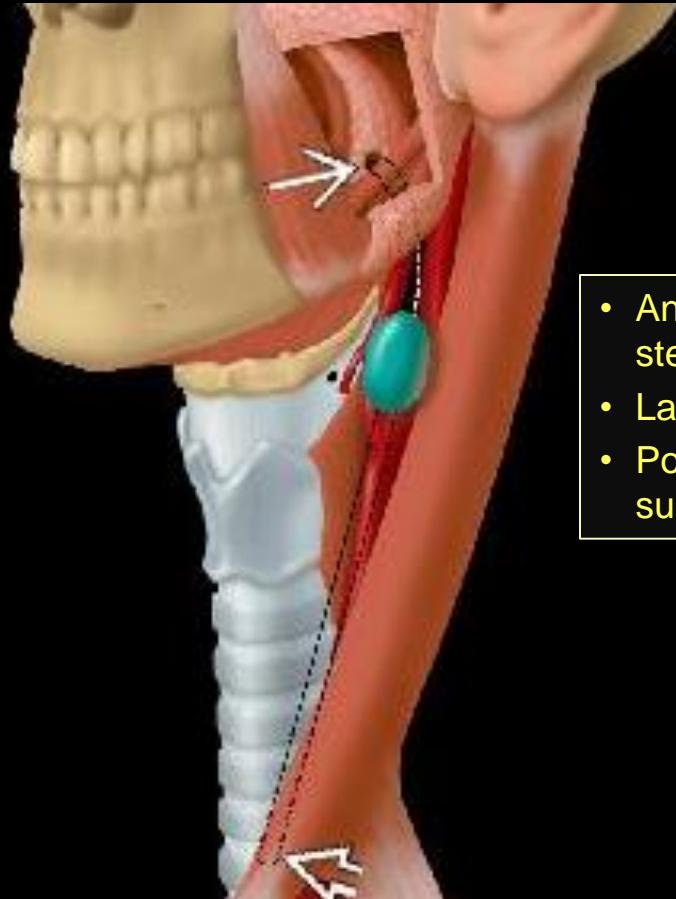
- ill-defined, nonenhancing, water attenuation mass (m) posterior to the right submandibular gland



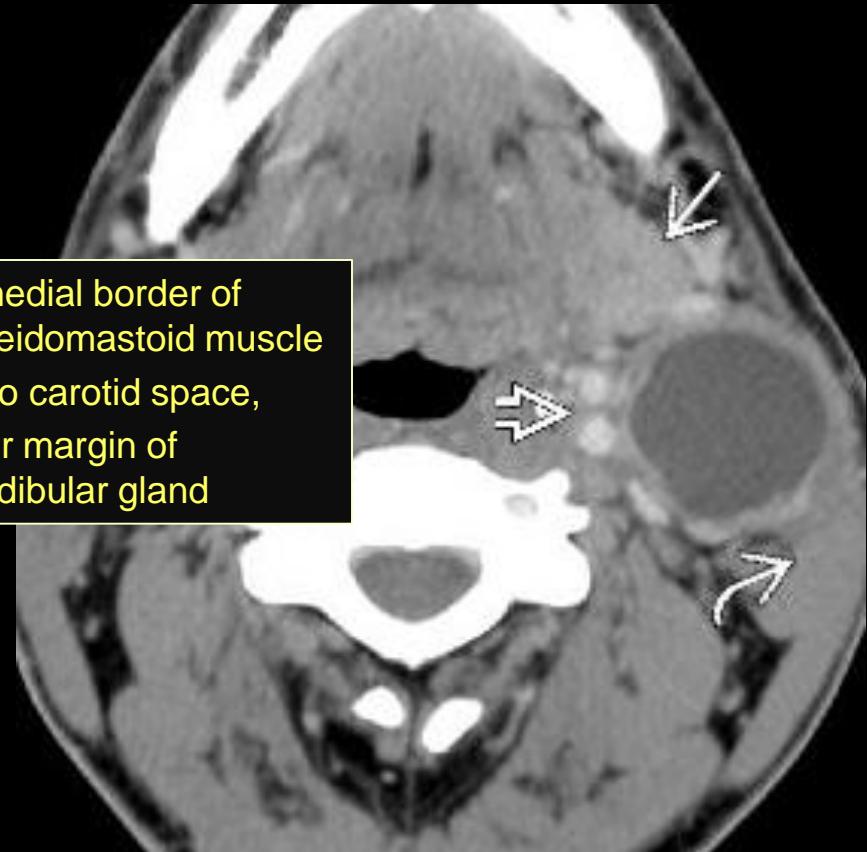
# First branchial cleft cyst

- Type I cysts
  - are located near the external auditory canal.
  - Most commonly, they are inferior and posterior to the tragus (base of the ear), but they may also be in the parotid gland or at the angle of the mandible.
  - Type I cysts may be difficult to distinguish from a solid parotid mass on clinical examination.
- Type II cysts are
  - associated with the submandibular gland or found in the anterior triangle of the neck

# Second branchial cleft cyst



- Anteromedial border of sternocleidomastoid muscle
- Lateral to carotid space,
- Posterior margin of submandibular gland



- **2nd BCC > 1st BCC > 3rd BCC & 4th BC**

# Second branchial cleft cyst

- 95% of all **branchial** cleft anomalies arise from second cleft.
- Classically, cyst located at anteromedial border of sternocleidomastoid muscle, lateral to carotid space, and at posterior margin of submandibular gland
- May occur anywhere along a line from the oropharyngeal tonsillar fossa to the supraclavicular region of neck

# 3rd branchial cleft cyst

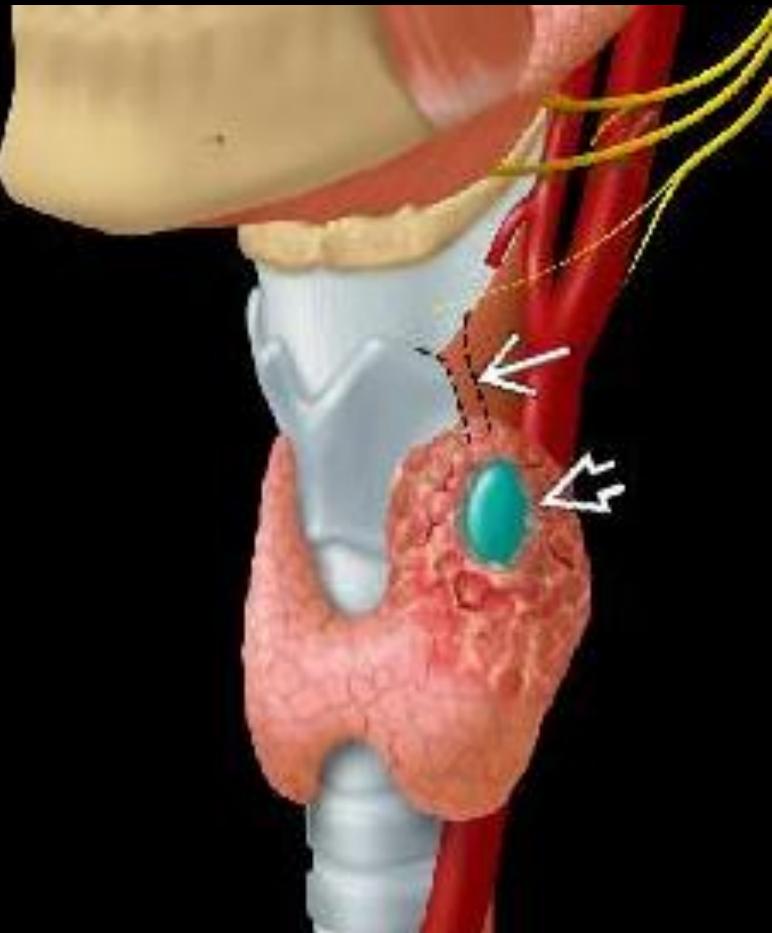
- Best diagnostic clue: Unilocular thin-walled cyst in posterior cervical space (posterior triangle)
- May contain air if cyst communicates with pyriform sinus via patent tract (3rd pharyngeal pouch derivative).
- Sternocleidomastoid muscle laterally (high cervical neck) or posterolaterally (low cervical neck) displaced



- 3rd branchial cleft anomalies account for only 3% of all branchial anomalies

# 4<sup>th</sup> branchial cleft cyst

- Best diagnostic clue:  
Unilocular thin-walled  
cyst in superior lateral  
aspect of LEFT thyroid  
lobe with associated  
thyroiditis



# 4<sup>th</sup> branchial cleft cyst

- May occur anywhere from LEFT pyriform sinus apex to thyroid lobe
- Commonly against or within superior aspect of the LEFT lobe of thyroid gland or attached to thyroid cartilage
- Upper end may communicate with or be adherent to pyriform sinus

