Carotid Body Paraganglioma

- Glomus caroticum
- Vascular mass splaying external and internal carotid arteries
- Rapid dynamic enhancement on CT and MR
- Serpentine or punctate vascular **flow voids** ("pepper") on MR, particularly in large lesions
- Hypoechoic vascular mass on duplex ultrasound
- Arteriovenous shunting on angiography
- **Ascending pharyngeal** artery is typical arterial feeder

DDX:

- Carotid space schwannoma or neurofibroma
- Carotid artery pseudoaneurysm or ectasia
- Glomus vagale paraganglioma
- Jugulodigastric lymph node

Pathology

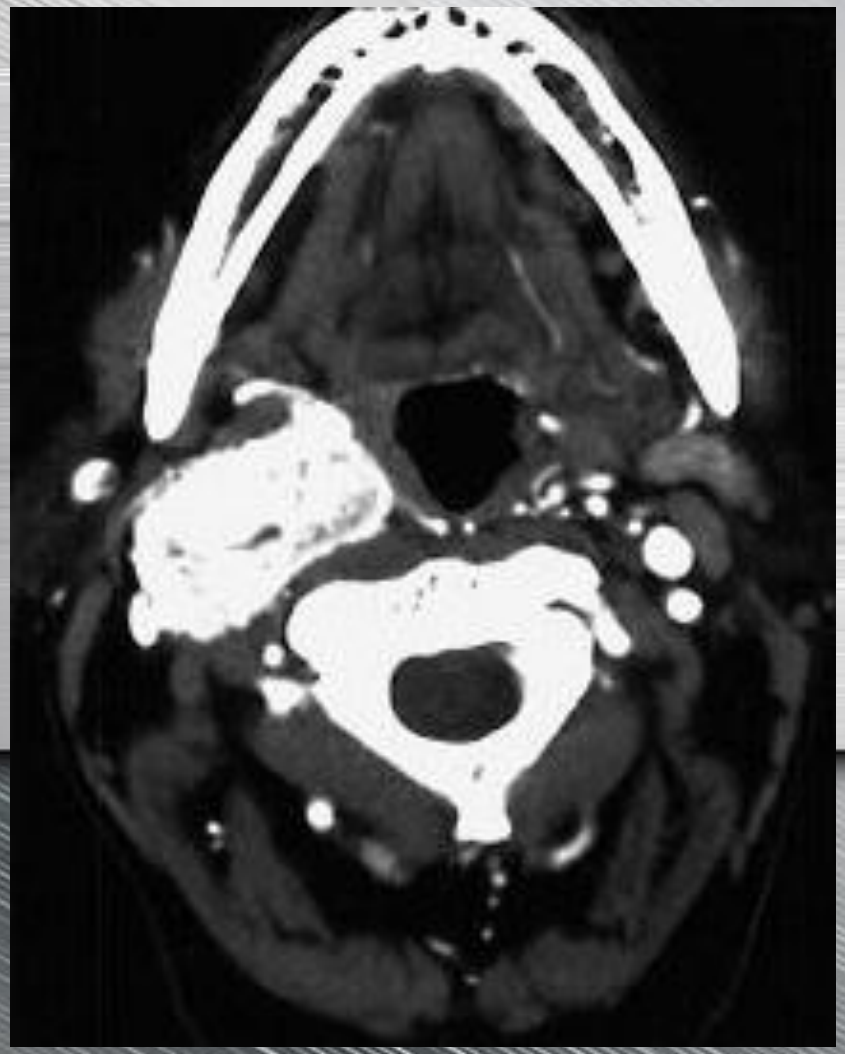
- Multiple gene mutations (familial and sporadic)Paraganglioma syndromes
- Multiple endocrine neoplasia syndromes
- von Hippel-Lindau syndrome
- When CBP is suspected, look for **multiple lesions**
  - Contralateral carotid bifurcation (CBP)
  - High carotid space (glomus vagale)
  - Jugular foramen (glomus jugulare)

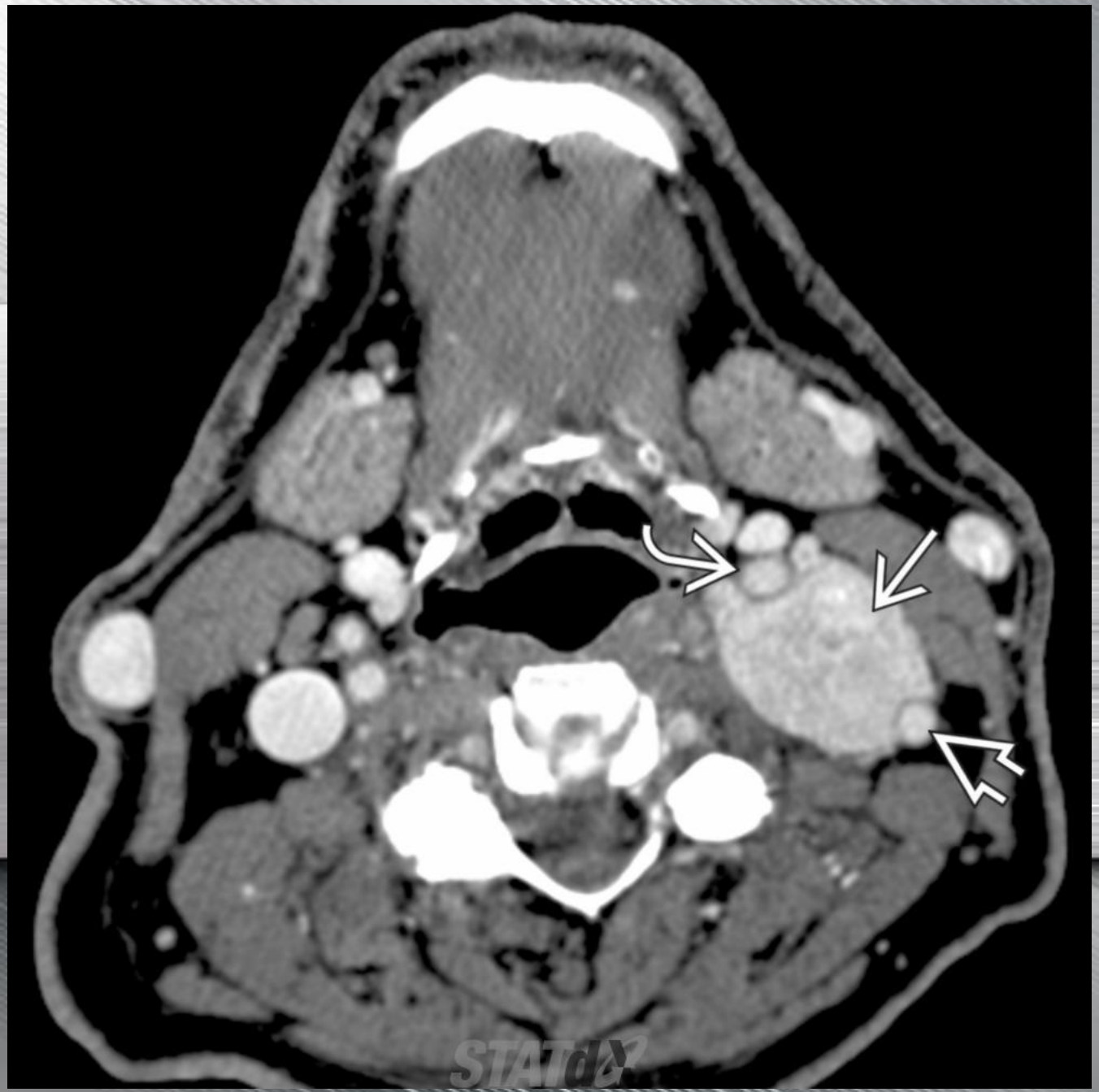
Surgical classification

- **Circumferential contact of tumor to ICA predicts surgical classification**

- **Type I: < 180°**
- **Type II: > 180° and < 270°**
- **Type III: > 27**

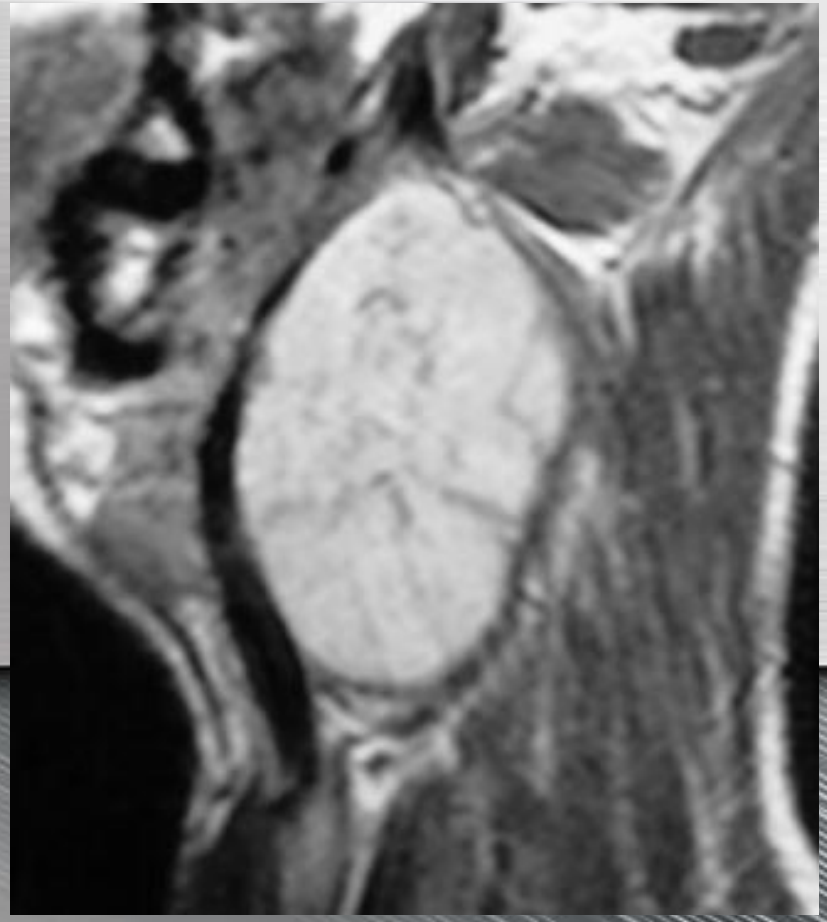
Carotid Body Tumor

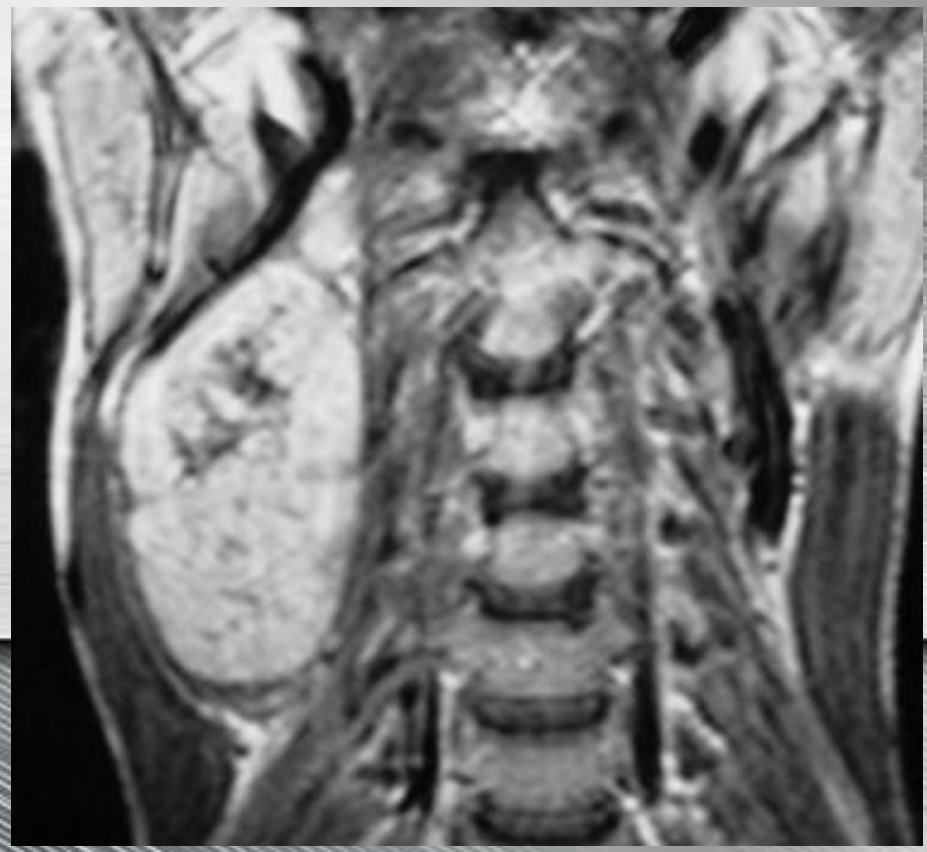




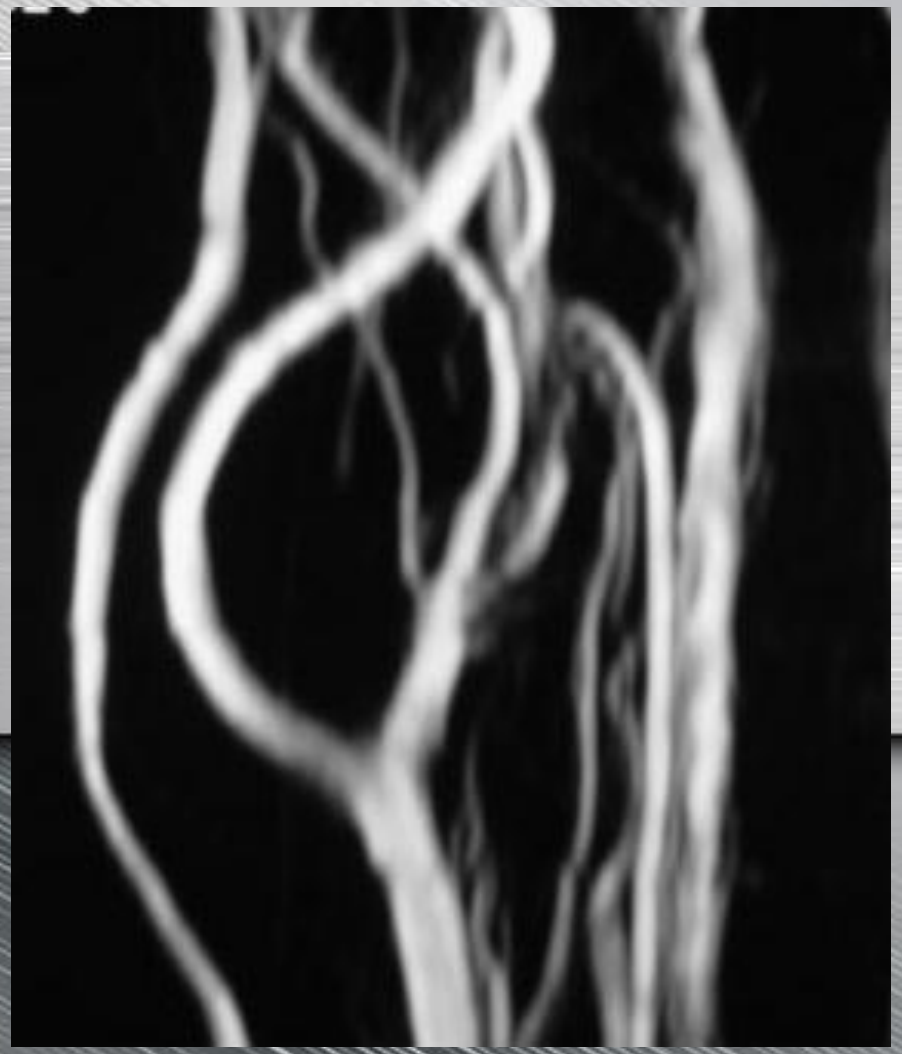
Axial CECT shows a classic carotid body paraganglioma (white solid arrow) with avid, fairly uniform enhancement. Notice the clear definition of the tumor sitting in the notch between the ICA (white open arrow) and ECA (white curved arrow).

Carotid Body Tumor





Carotid Body Tumor



Vagus Nerve Shwanoma

(cystic and nonenhaning, common in this location)