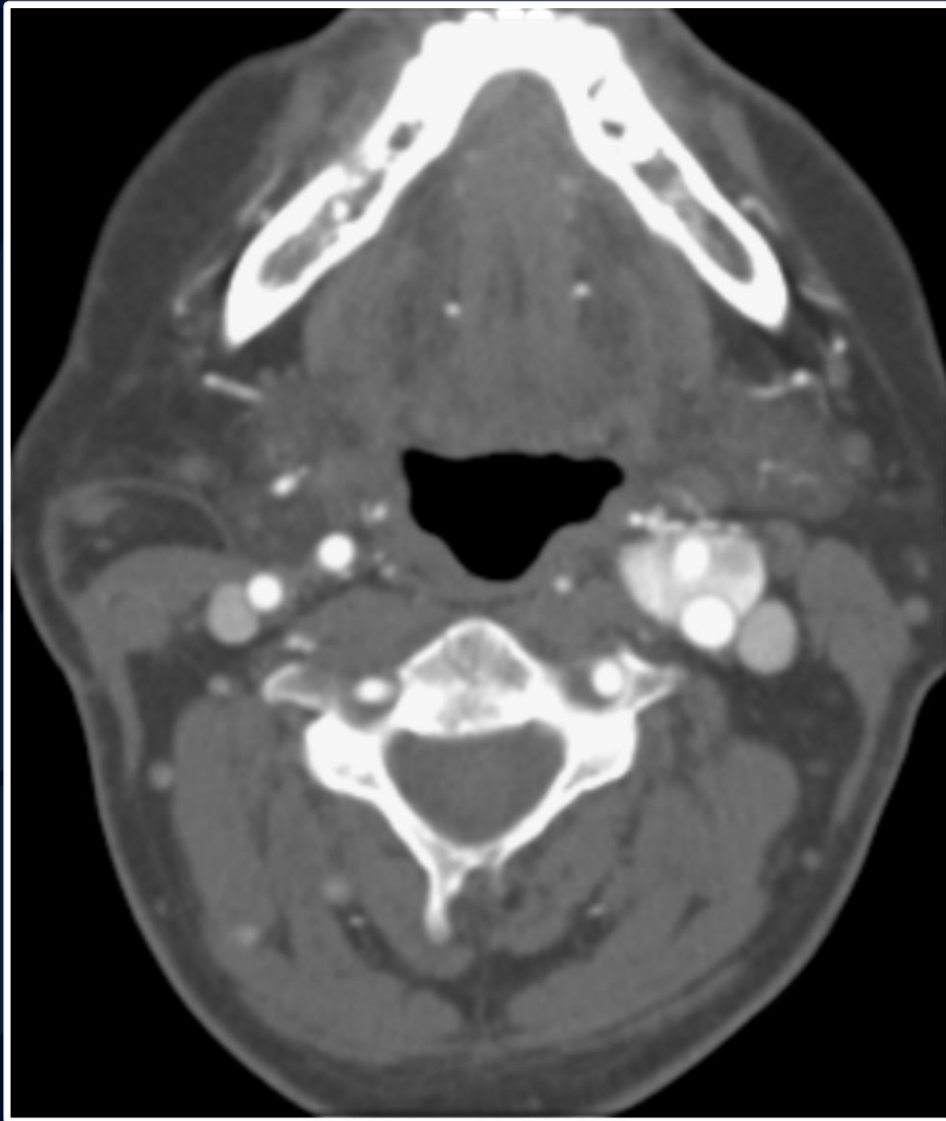


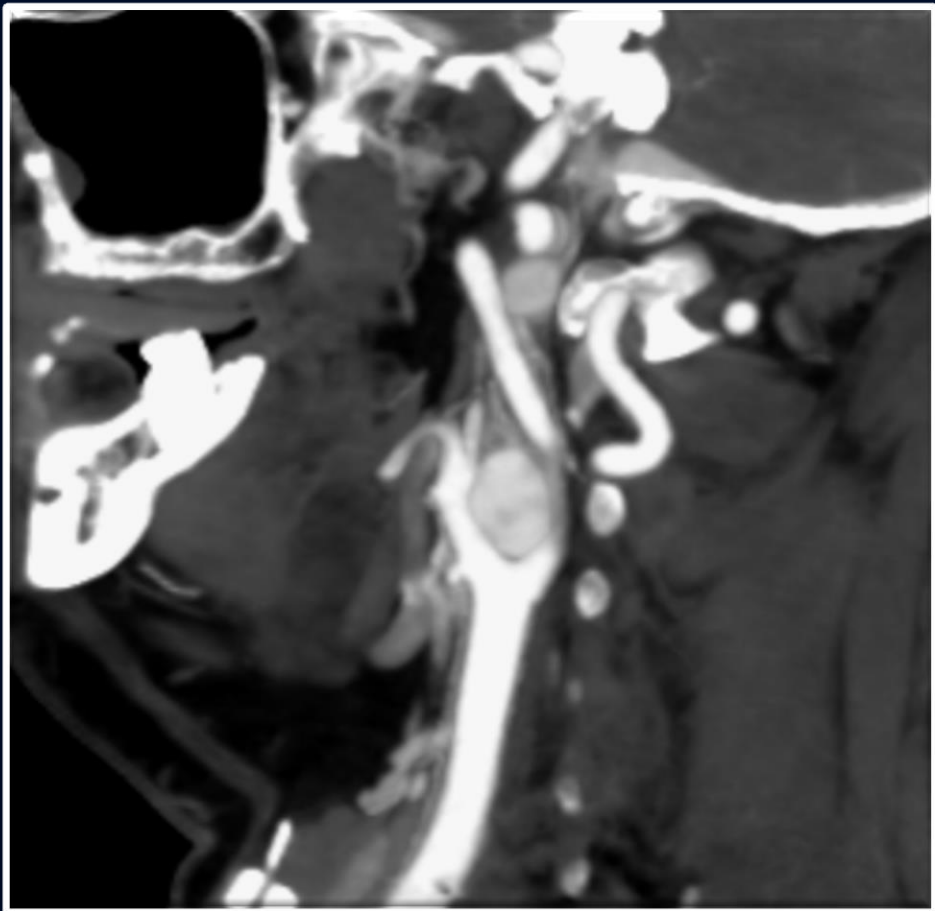
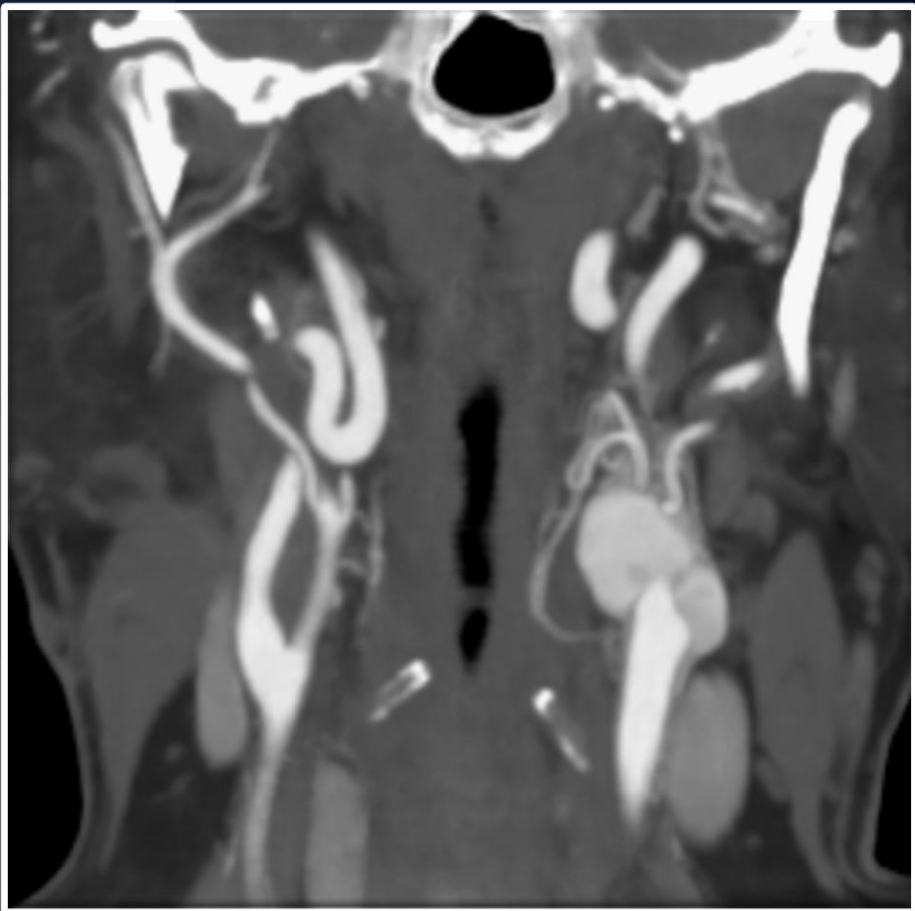
41-year-old male with painless, pulsatile mass in the neck

John J. DeBevits IV, MD

Leo Wolansky, MD



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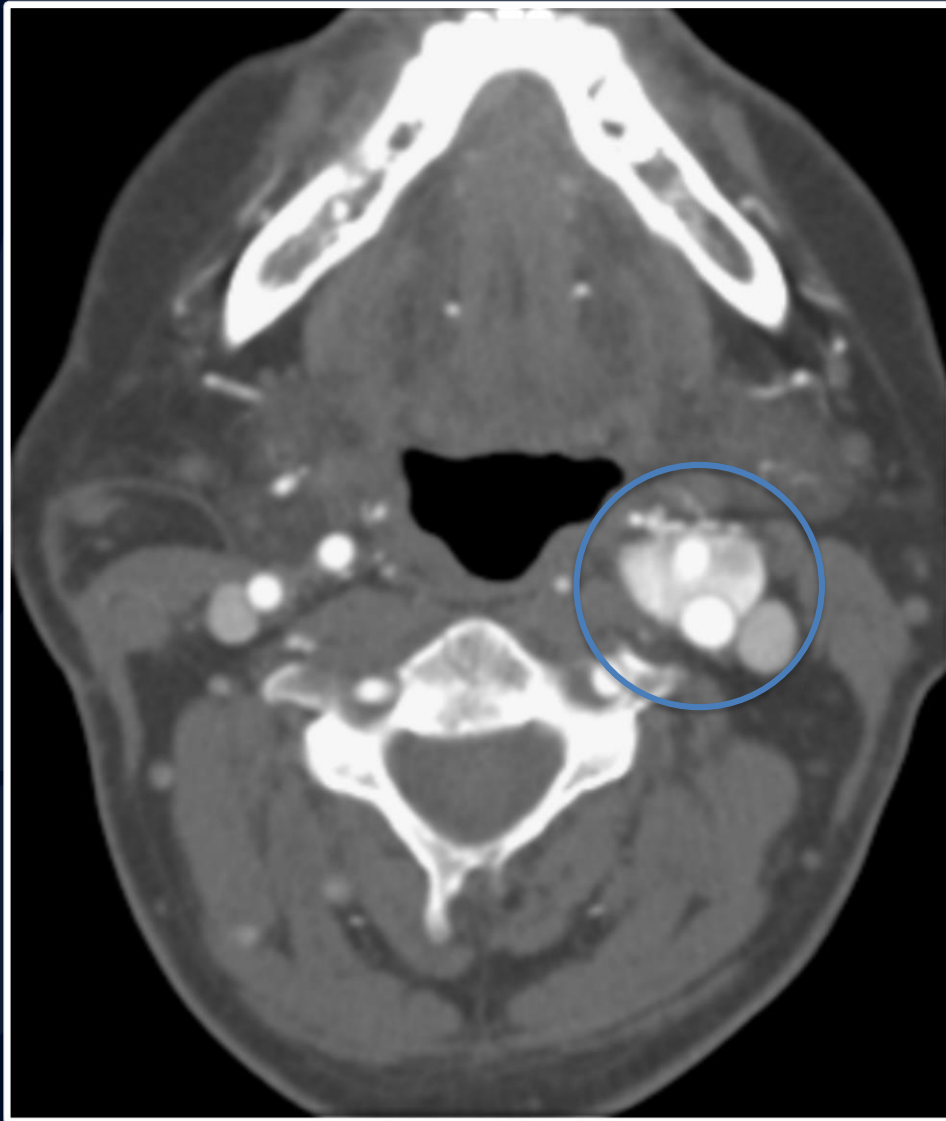


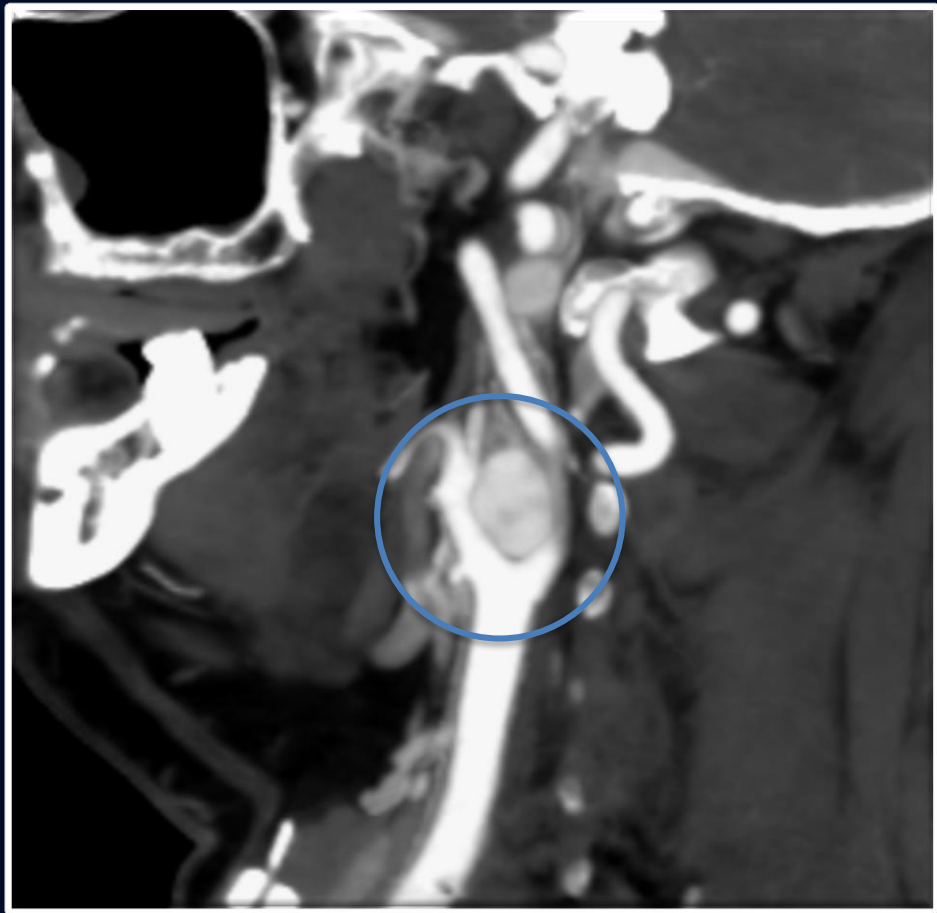
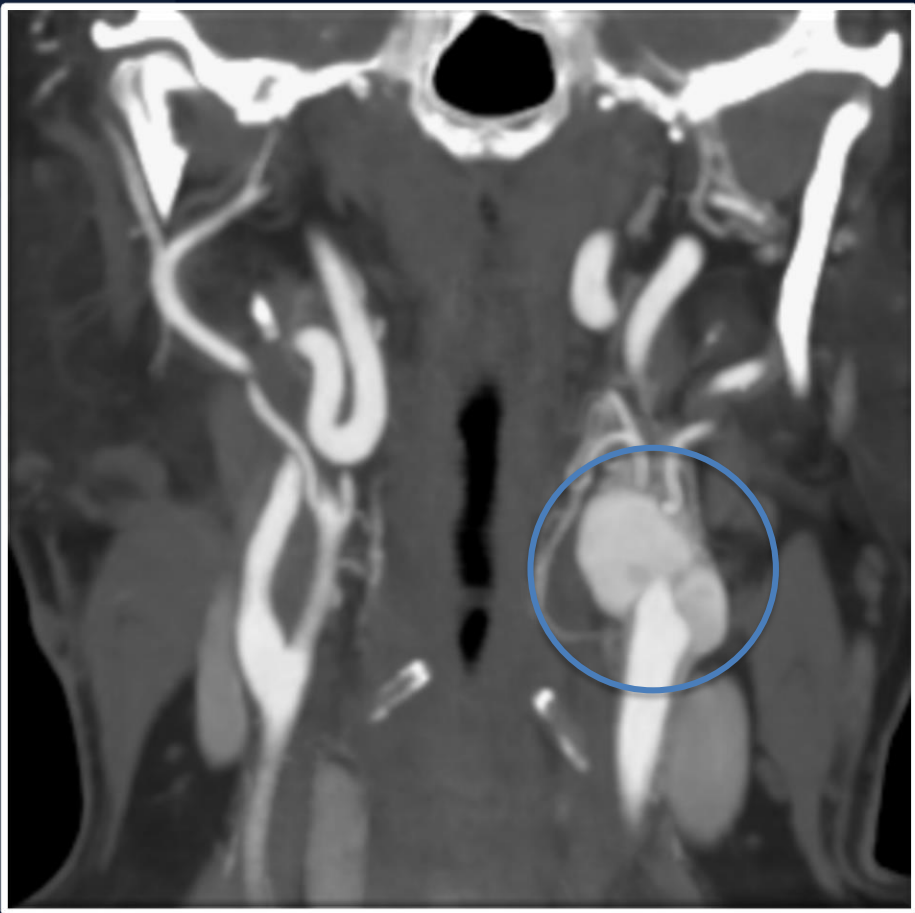


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Carotid body paraganglioma





Carotid body tumor (CBT, Carotid body paraganglioma) (chemodectoma, non-chromaffin paraganglioma)

- Slow growing tumor of neural crest origin arising from carotid glomus bodies (paraganglia)
- CBT is always located at/above carotid bifurcation
- Bilateral in 5-10% of cases
- May be associated with paraganglioma syndromes, MEN type 2, VHL, NF1
- Catecholamine-secreting form is **rare**
- Surgical excision is treatment of choice if symptomatic

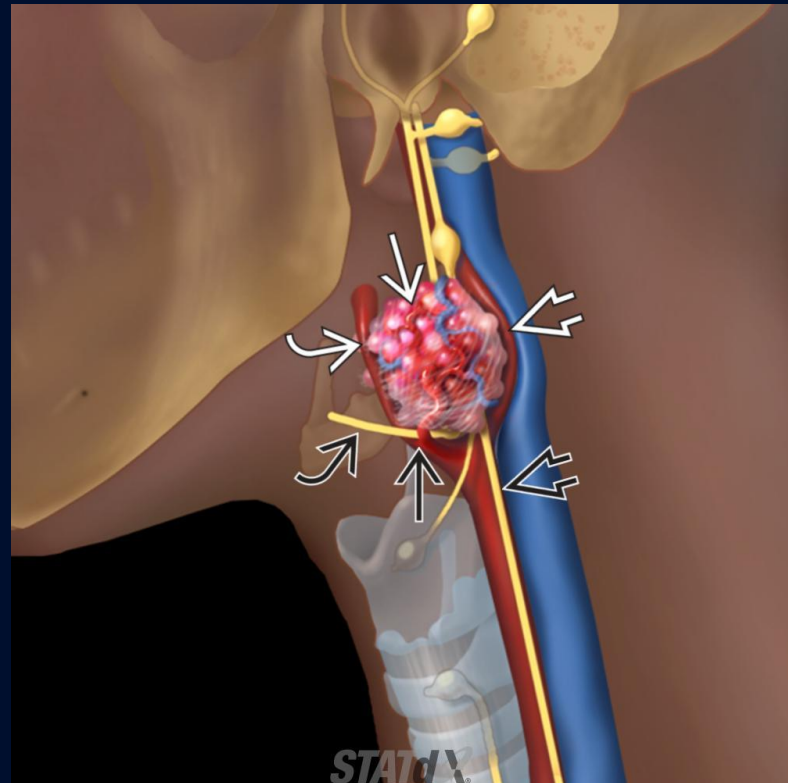
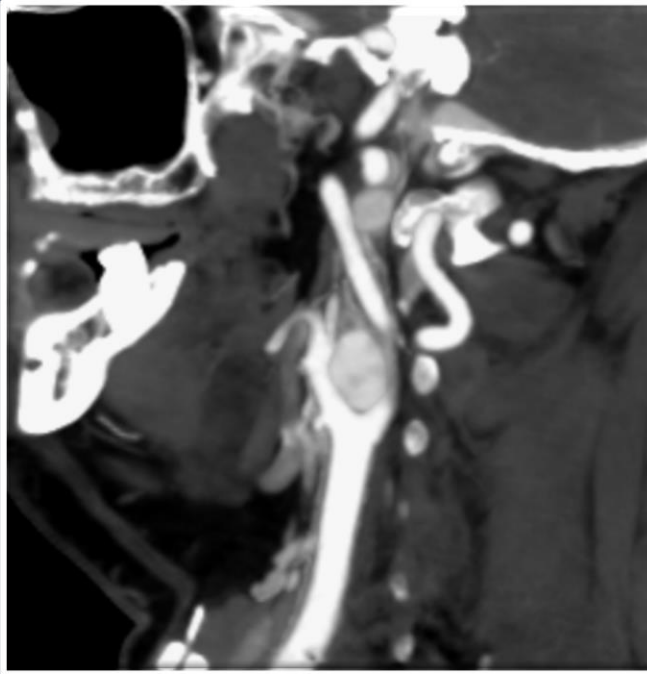
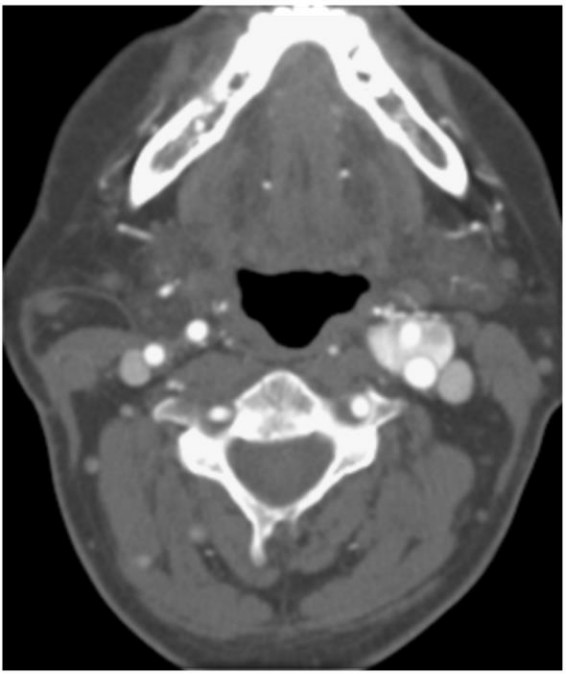
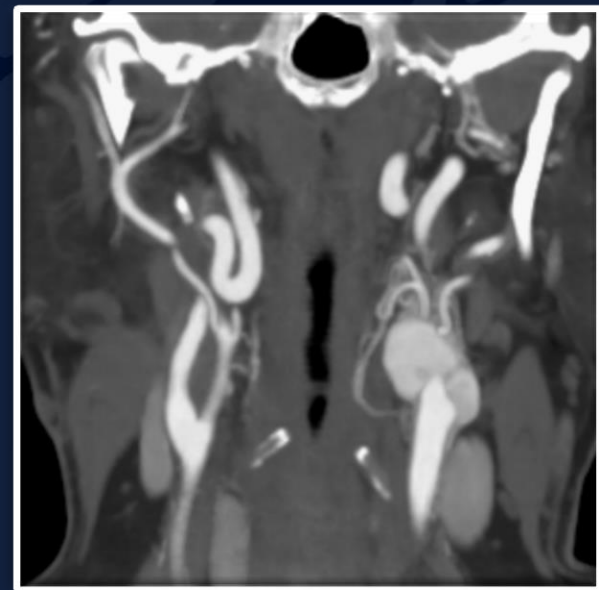


Image courtesy of Statdx



Carotid body paraganglioma



- CECT/CTA: Avidly enhancing, often lobulated mass at CCA bifurcation splaying ECA & ICA
 - Displaces ECA anteromedially & ICA posterolaterally
- Typically 1-6cm extending cephalad from carotid bifurcation
- T1WI: “Salt & pepper appearance” in larger lesions; pepper indicates flow voids
- T2WI: Mildly hyperintense with S&P heterogeneity
- T1WI C+: Intense, rapid dynamic enhancement
- Ultrasound: Hypoechoic mass at bifurcation with extensive vascularity & low Doppler signal

Carotid Space lesions - DDx:

Anatomy	Pathology
Carotid bifurcation	Carotid body tumor
Carotid artery (including bifurcation)	Carotid pseudoaneurysm
Internal jugular vein	Bland thrombosis vs Lemierre syndrome if infection spread
Vagus nerve	Schwannoma/ neurofibroma/ Glomus vagale (if nodose ganglion)
Lymph nodes (levels 2-4)	Lymphoma of jugulodigastric LN
Congenital remnants of 2 nd brachial cleft	2 nd brachial cleft cyst