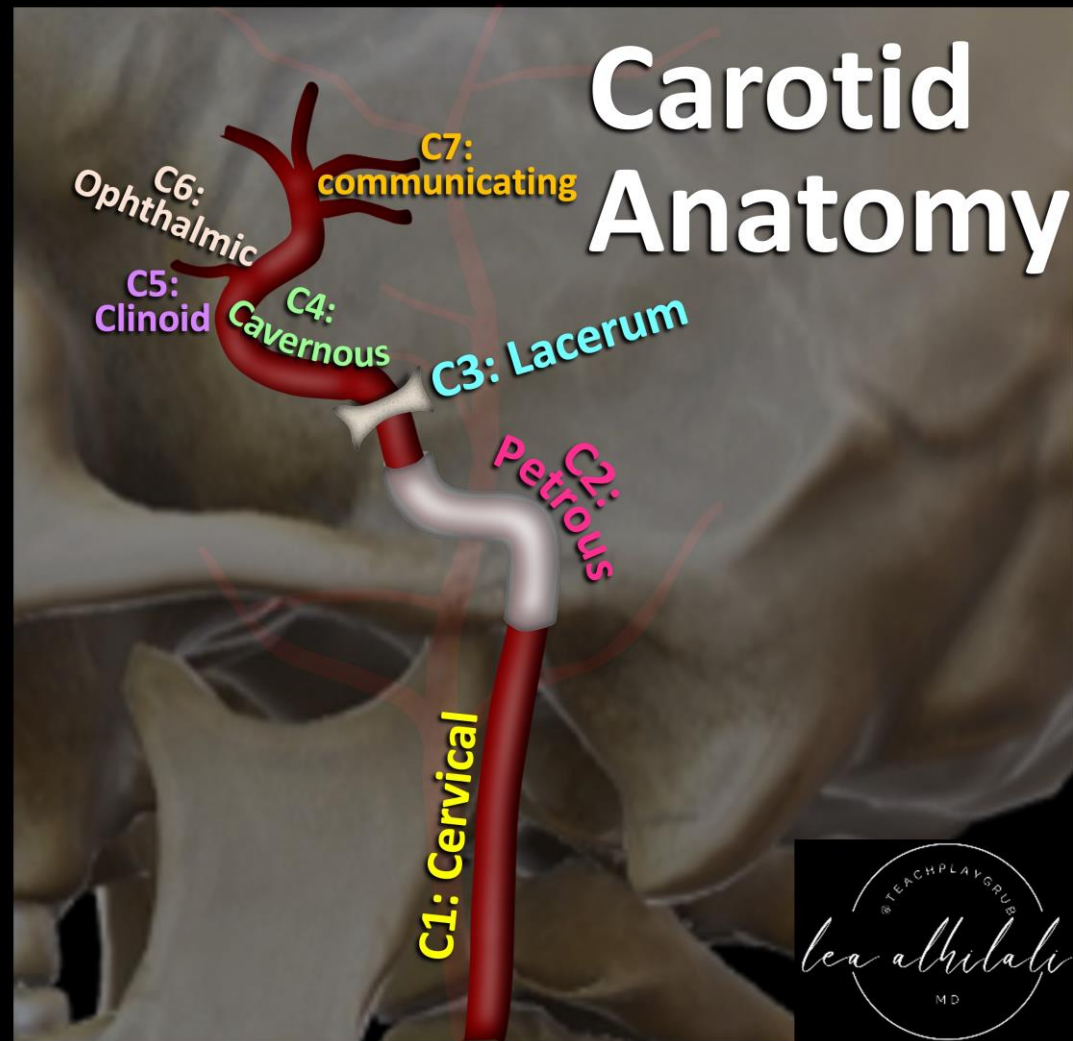


**Figure.3:** Segments of the internal carotid artery.

Source: Handbook of Neurosurgery. 9th ed.<sup>14</sup>



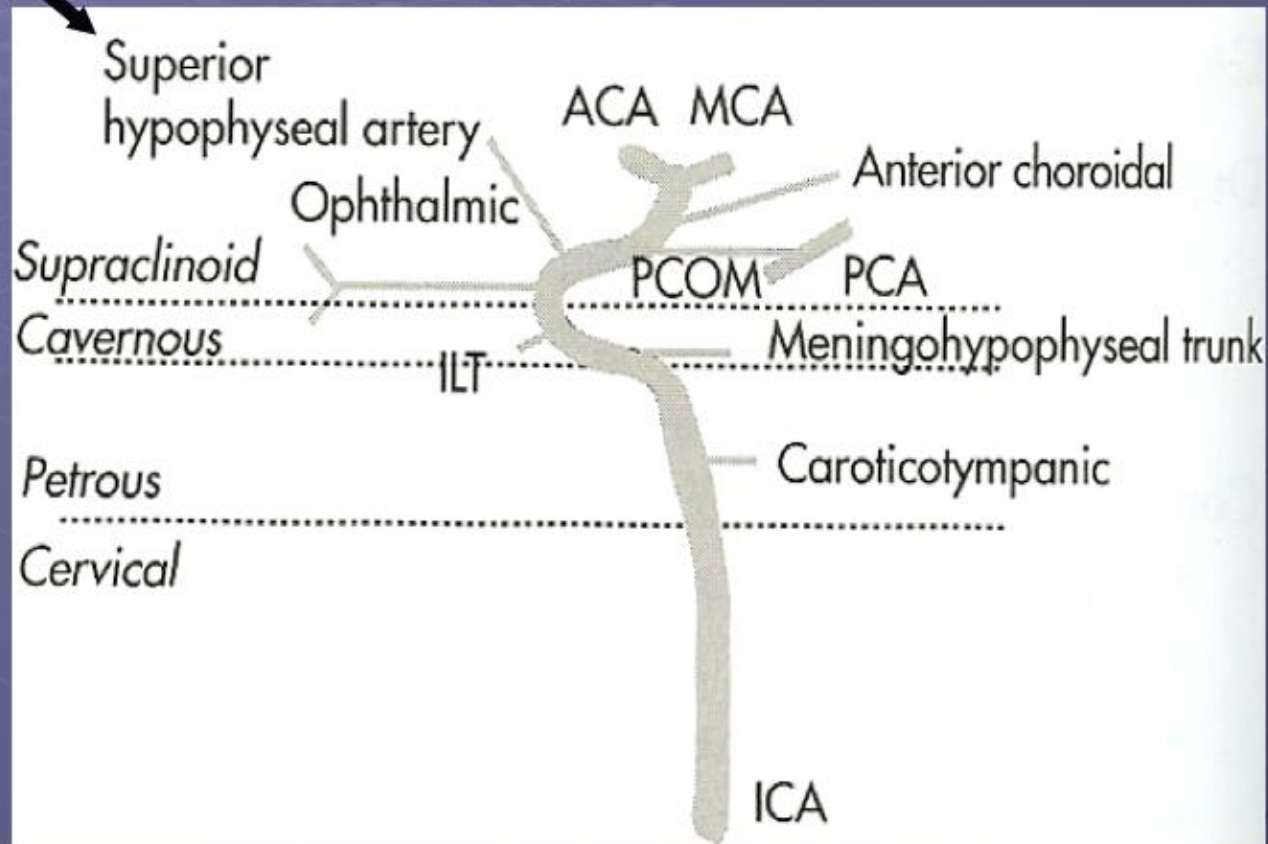
# Mnemonic

- "C'mon Please Learn Carotid Clinical Organizing Classification" or "C'mon, Please Let Children Consume Our Candy"
- ➡C1 (Cervical )
- ➡C2 (Petrous)
- ➡C3 (Lacerum)
- ➡C4 (Cavernous)
- ➡C5 (Clinoid)
- ➡C6 (Ophthalmic)
- ➡C7 (Communicating)

- ➡C1 = Cervical
- ♦ Number 1 looks like a long straight neck. So C1 travels straight in the neck
- ➡C2 = Petrous
- ♦ Number 2 makes a curve like a swan's neck, the same way the petrous ICA curves as it enters the skullbase
- ➡C3 = Lacerum
- ♦ Number 3 looks like the zig zag of a ragged cut or laceration, so 3 is a laceration = lacerum
- ➡C4 = Cavernous
- ♦ ICA takes a turn here, called the genu, which means knee. This is bc it bends like a knee
- ♦ Number 4 looks like a calf with a big gastrocnemius along the back so C4 is at the knee or genu
- ➡C5 = Clinoid
- ♦ Clinoid comes from the same root as recline
- ♦ What do you do when you reCLINE? You take a break or take 5
- ♦ Take 5 and reCLINE!
- ➡C6 = Ophthalmic
- ♦ Round whole in the number 6 looks like an eye, so 6 = ophthalmic
- ➡C7 = Communicating
- ♦ Number 7 looks an open beak or pac man mouth talking = communicating, so 7 = communicating
- So now you can be precise in your localization and siphon away the term "carotid siphon"!!

# ICA

Rarely seen



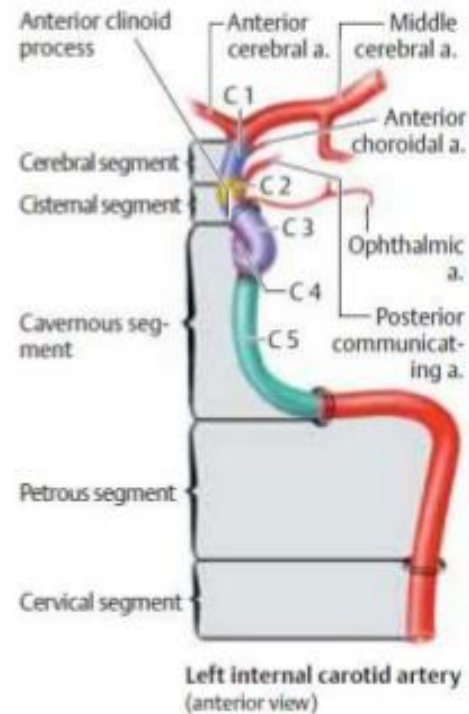
# INTERNAL CAROTID ARTERY

- **Four segments:**

- Cervical
- Petrous
- Cavernous
- Cerebral / Supraclinoid

- **Branches**

- Meningohypophyseal trunk
- Ophthalmic artery (OA)
- Superior hypophyseal artery
- Posterior communicating artery (PComA)
- Anterior choroidal artery (AChA)
- Anterior cerebral artery (ACA)
- Middle cerebral artery (MCA) (continuation of the ICA)



# ICA

## Internal Carotid Artery

Origin C3-5

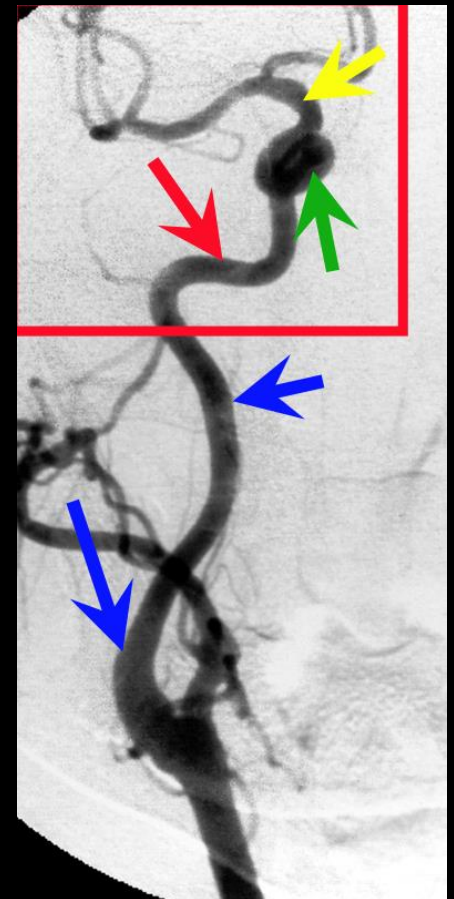
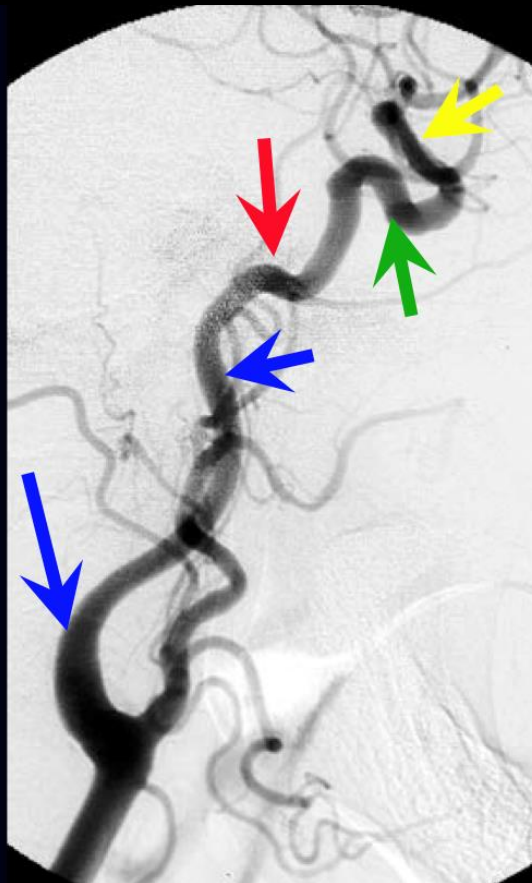
Segments:

Cervical →

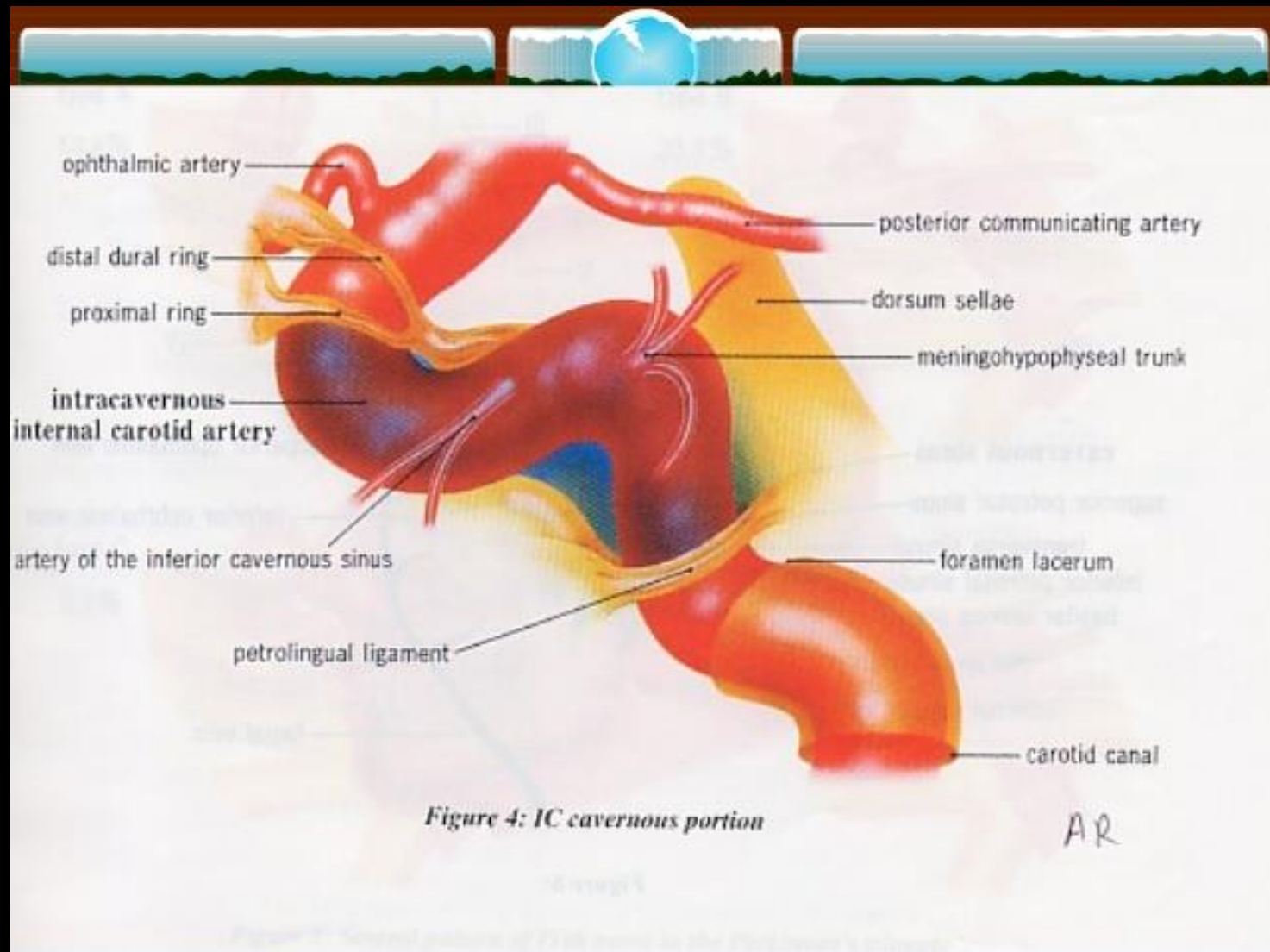
Petrous →

Cavernous →

Intradural →









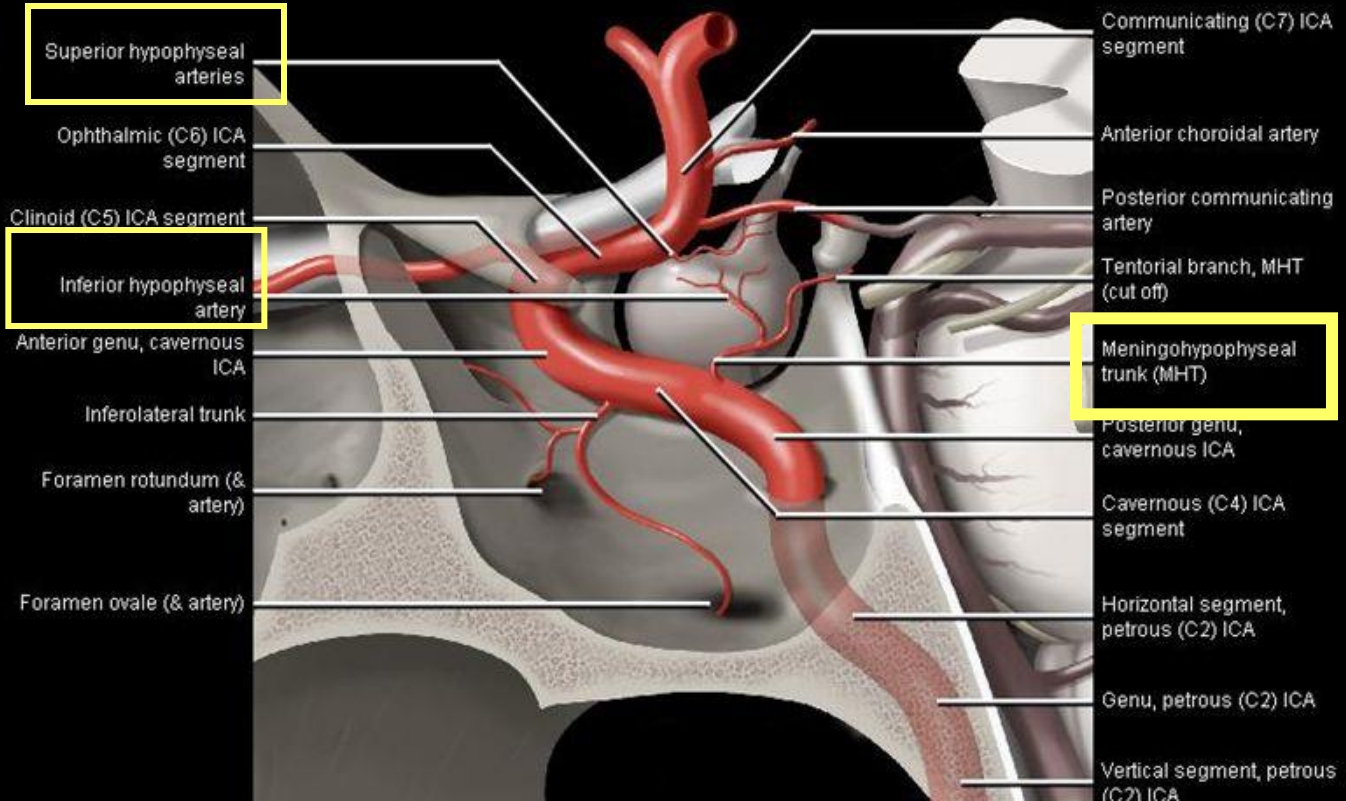
# Meningohypophyseal trunk

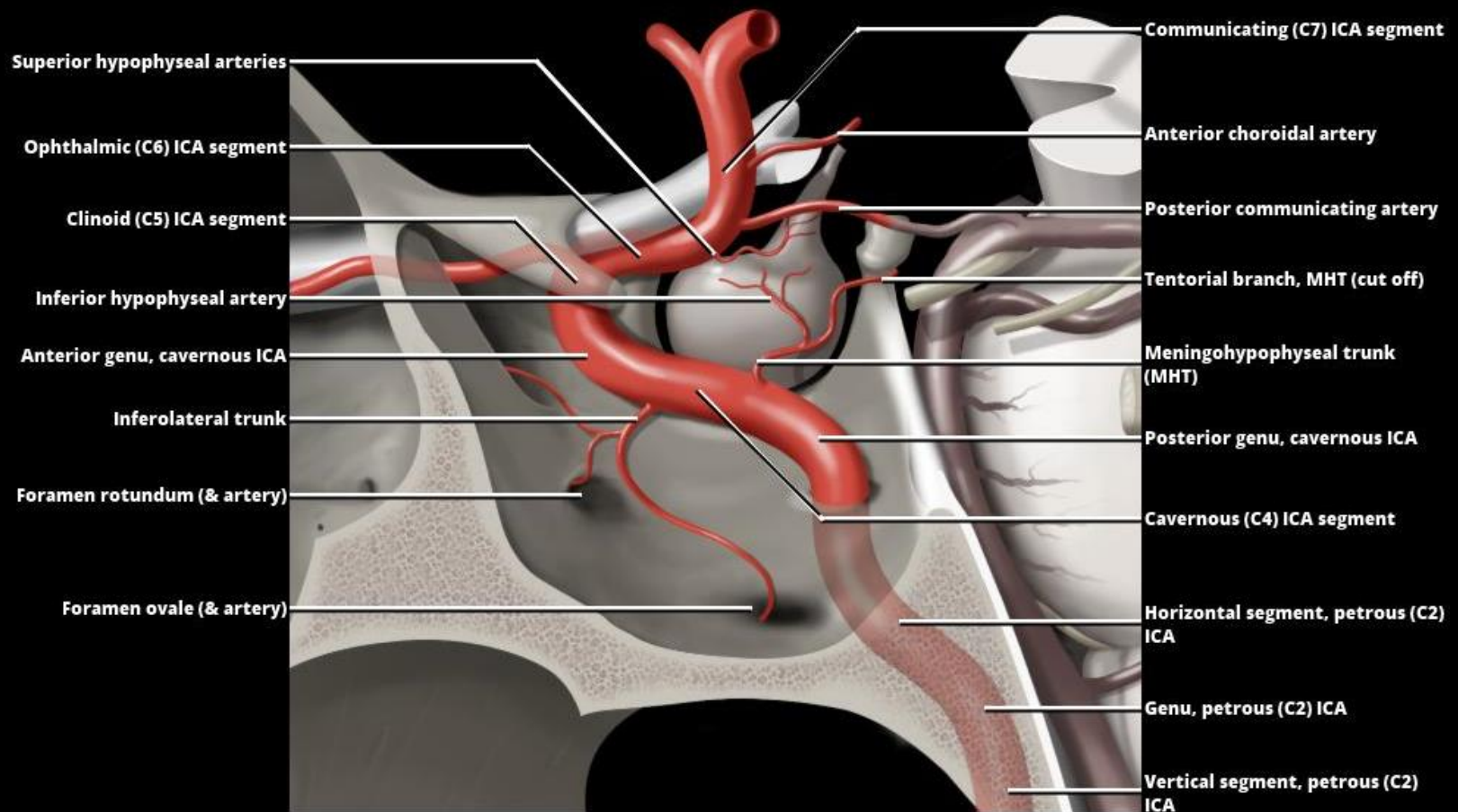
- Meningohypophyseal trunk is largest and most proximal branch of cavernous ICA (C4), usually comes off posteriorly
- Three branches are:
  - inferior hypophyseal artery (D)
  - tentorial artery (of Bernasconi and Cassanari) (C)
  - dorsal meningeal artery (B) (lateral tentorial artery?)
- Highly variable
- Can include a persistent trigeminal artery





The C3 (lacerum) ICA segment is a short segment that begins where the petrous carotid canal ends. It passes above (not through) the foramen lacerum and is covered by the trigeminal ganglion. Major branches of the cavernous ICA (C4) segment are depicted with their numerous anastomoses with ECA branches (e.g., arteries of foramen ovale, rotundum).

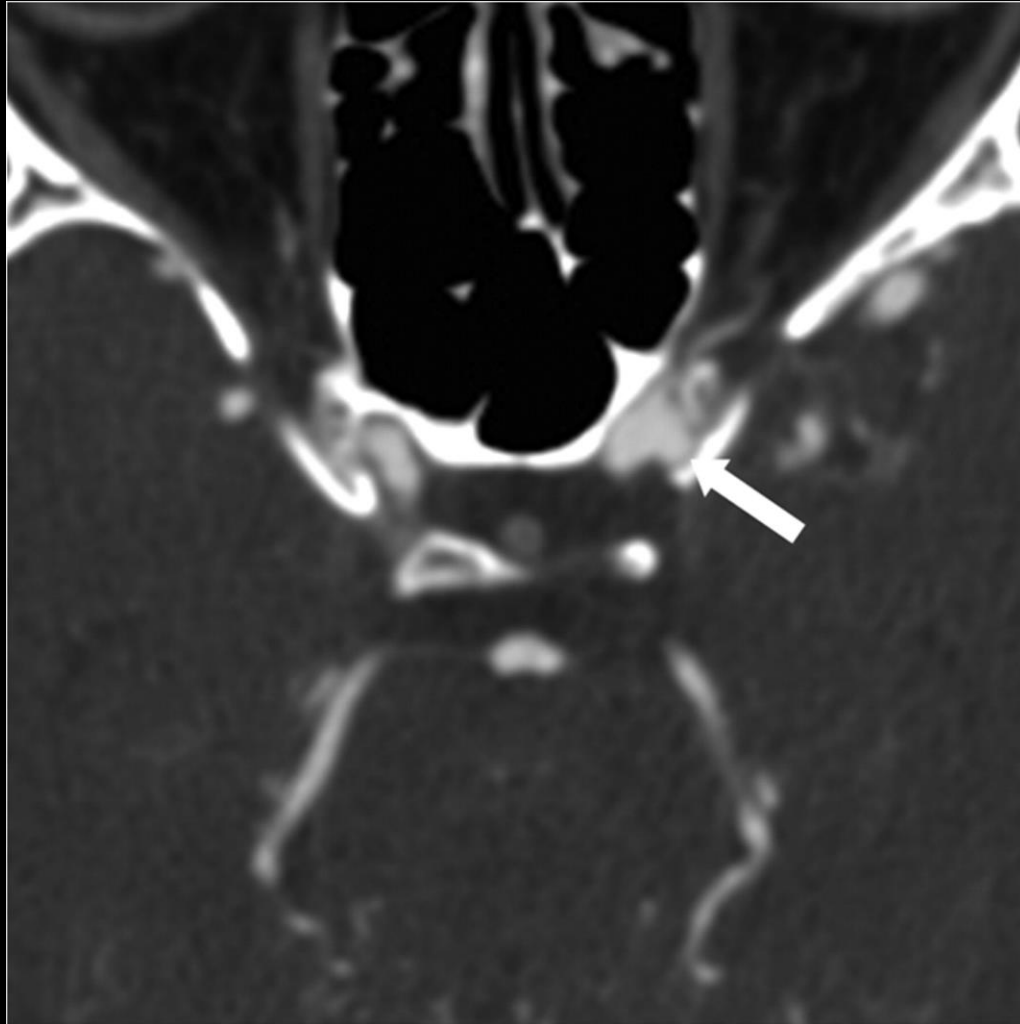




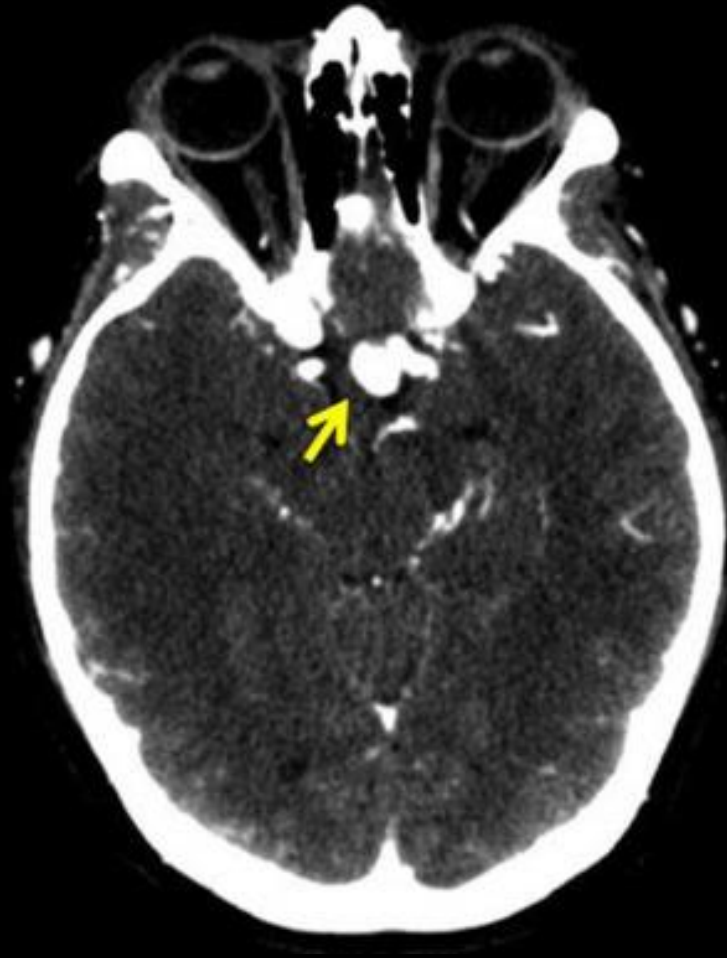
The C3 (lacerum) ICA segment is a short segment that begins where the petrous carotid canal ends.

It passes above (not through) the foramen lacerum and is covered by the trigeminal ganglion. Major branches of the cavernous ICA (C4) segment are depicted with their numerous anastomoses with ECA branches (e.g., arteries of foramen ovale, rotundum).

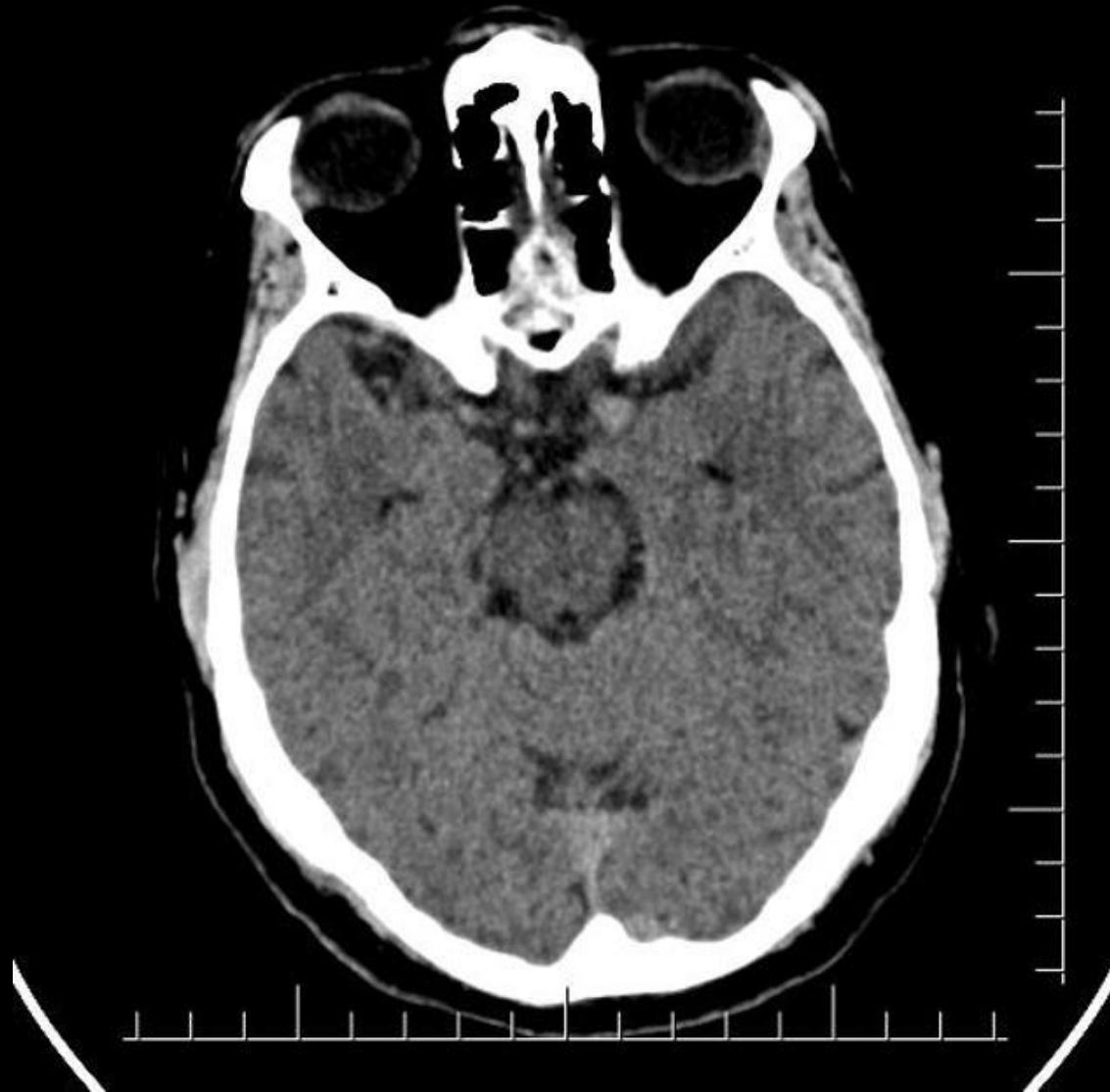
# Ophthalmic Artery aneurysm



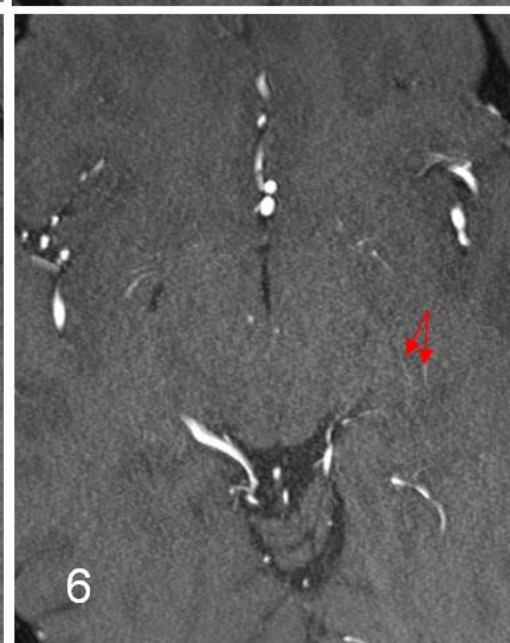
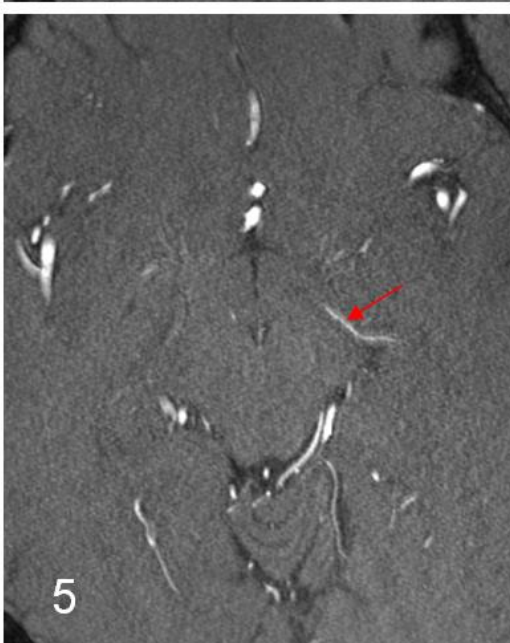
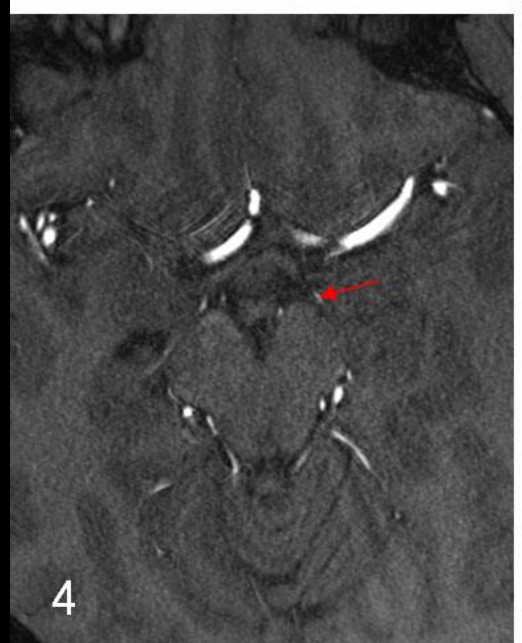
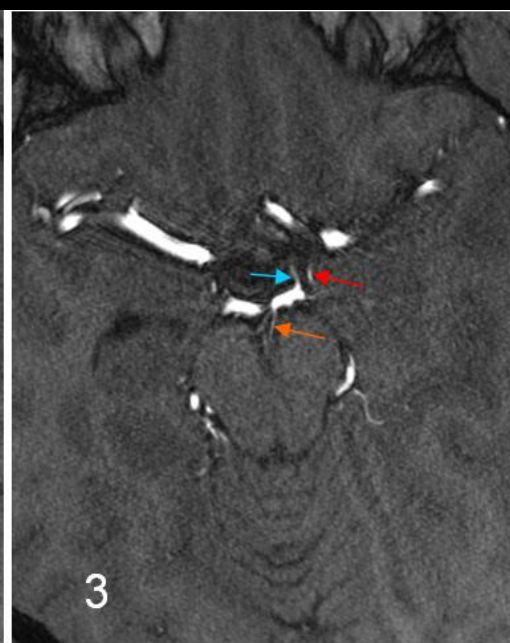
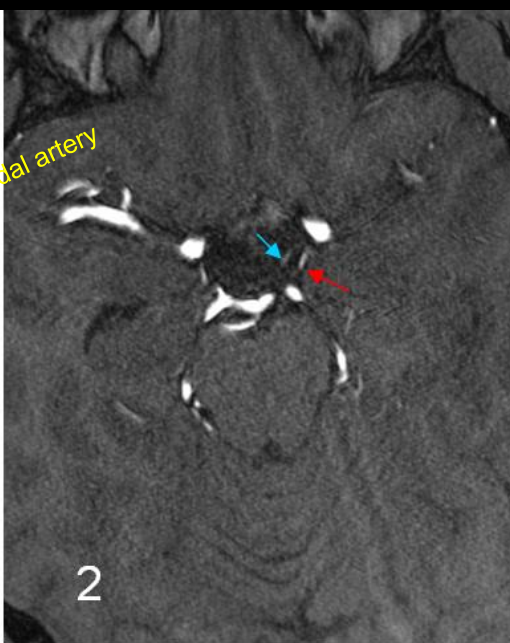
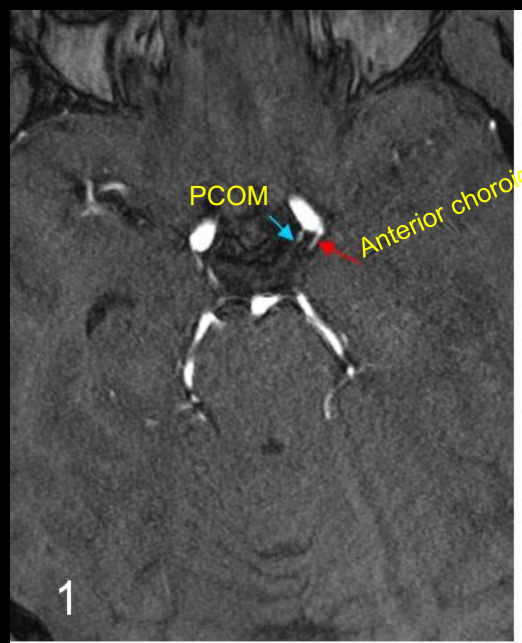
# Superior hypophyseal aneurysm



# Posterior communicating artery Aneurysm

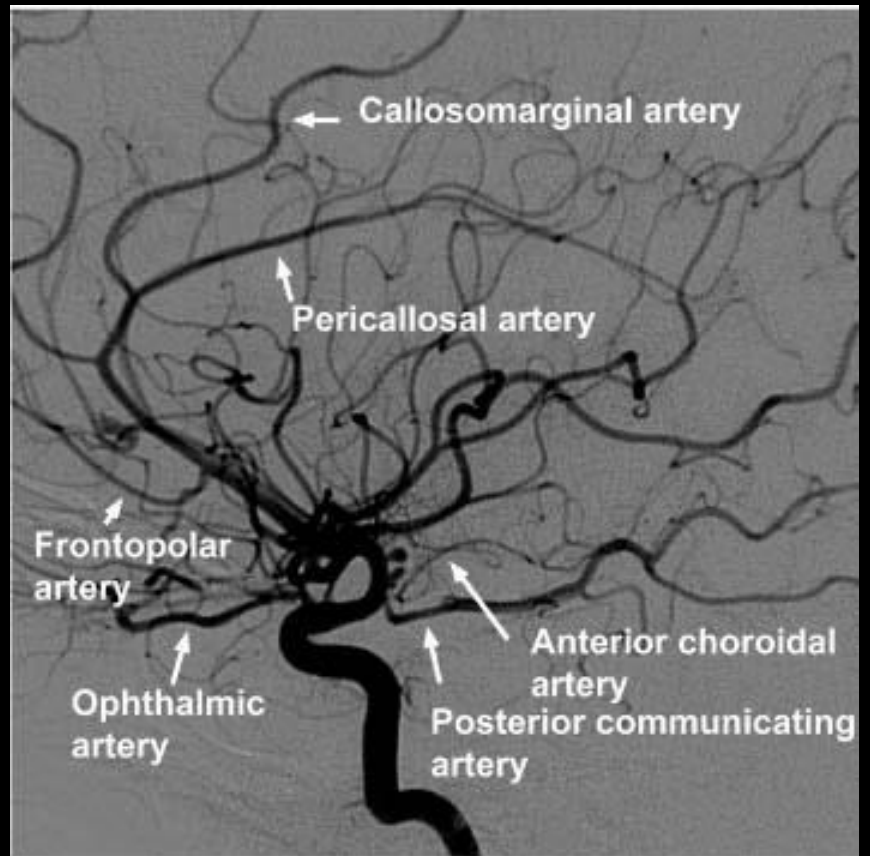
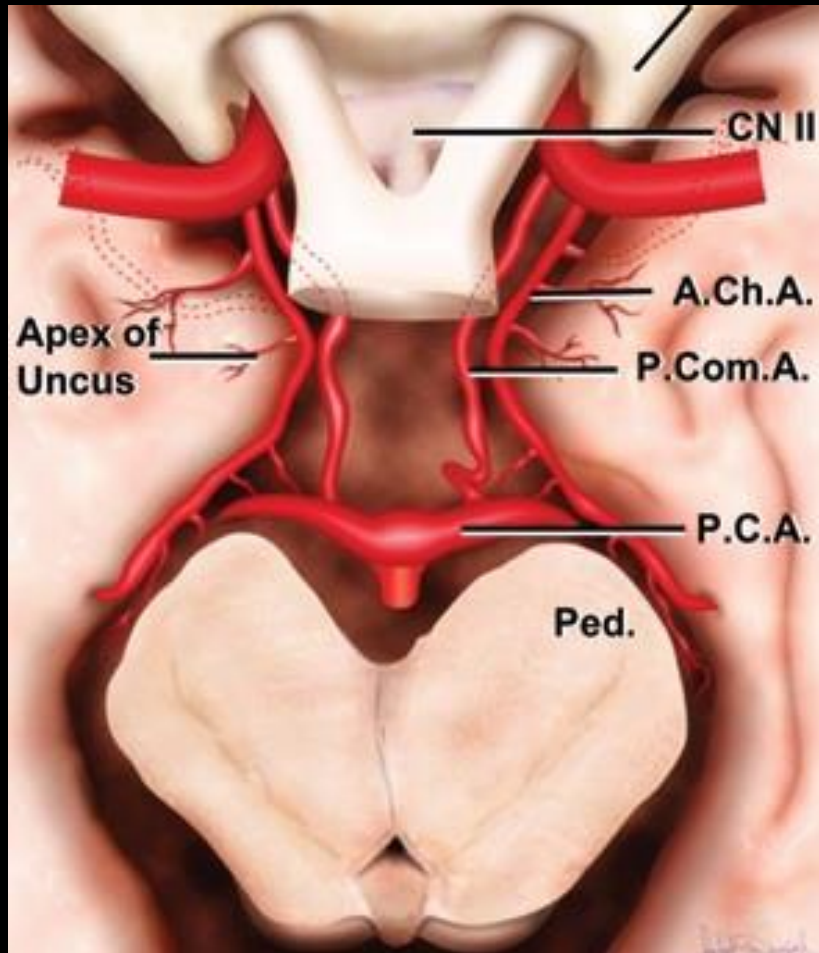








# Anterior choroidal artery



# Paraclinonoid Aneurysms

- Transitional – at genu extradural but insinuate through the ring.
- Carotid cave-must distal to ring on medial side – SAS
- Carotid-opthalmic- close to ophthalmic usually superiorly.
- Ventral “posterior”
- Superior Hypophyseal –medial aspect of supraclinoid segment.