

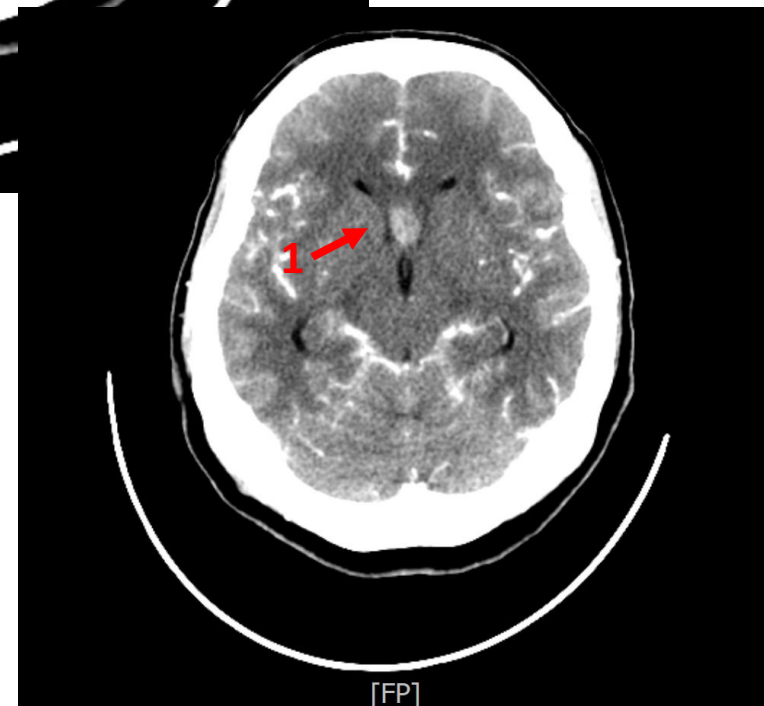
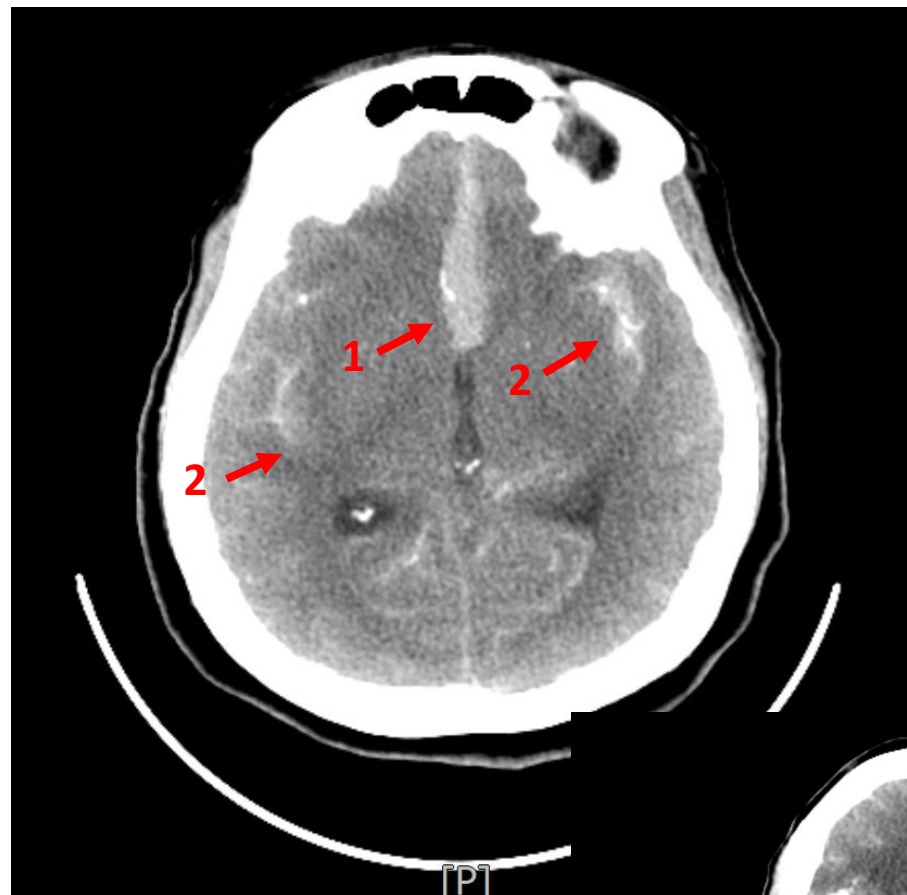
Case 1: SAH 嚴大鈞

- 女/50
- Present illness:
 - Sudden consciousness change was noted just now
 - Mild weakness in the left upper limb, bilateral mild Babinski response

2024/12/15 CT

1. A hematoma in septum pellucidum.
2. High density materials in bilateral Sylvian fissures and sulci of bilateral cerebral hemispheres

→ SAH合併septum pellucidum
有Hematoma可推測Aneurysm可
能在ACoA應作CTA進一步驗證。

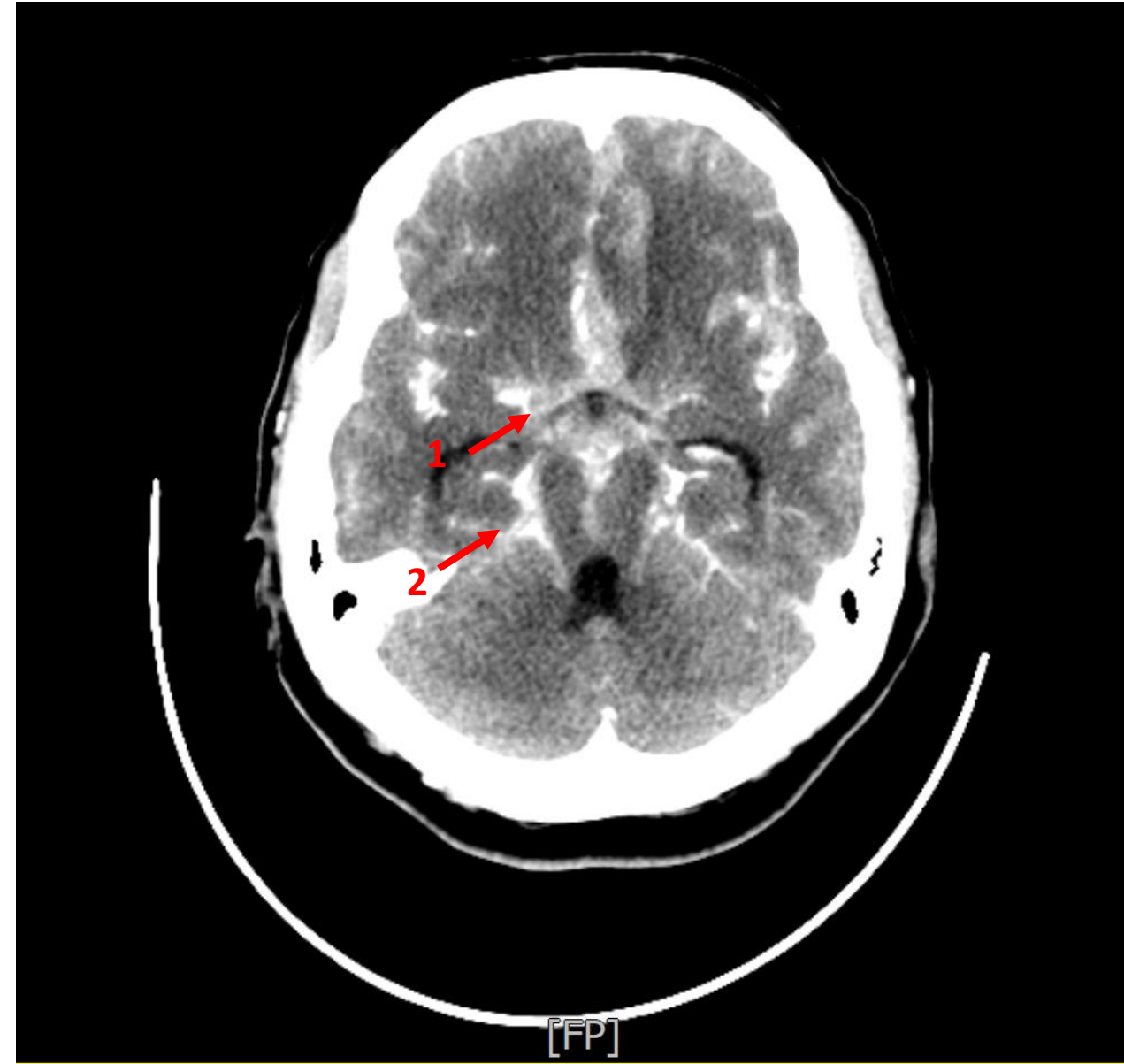


2024/12/15 CT

High density materials in the

1. Suprasellar cistern
2. Peripontine cistern

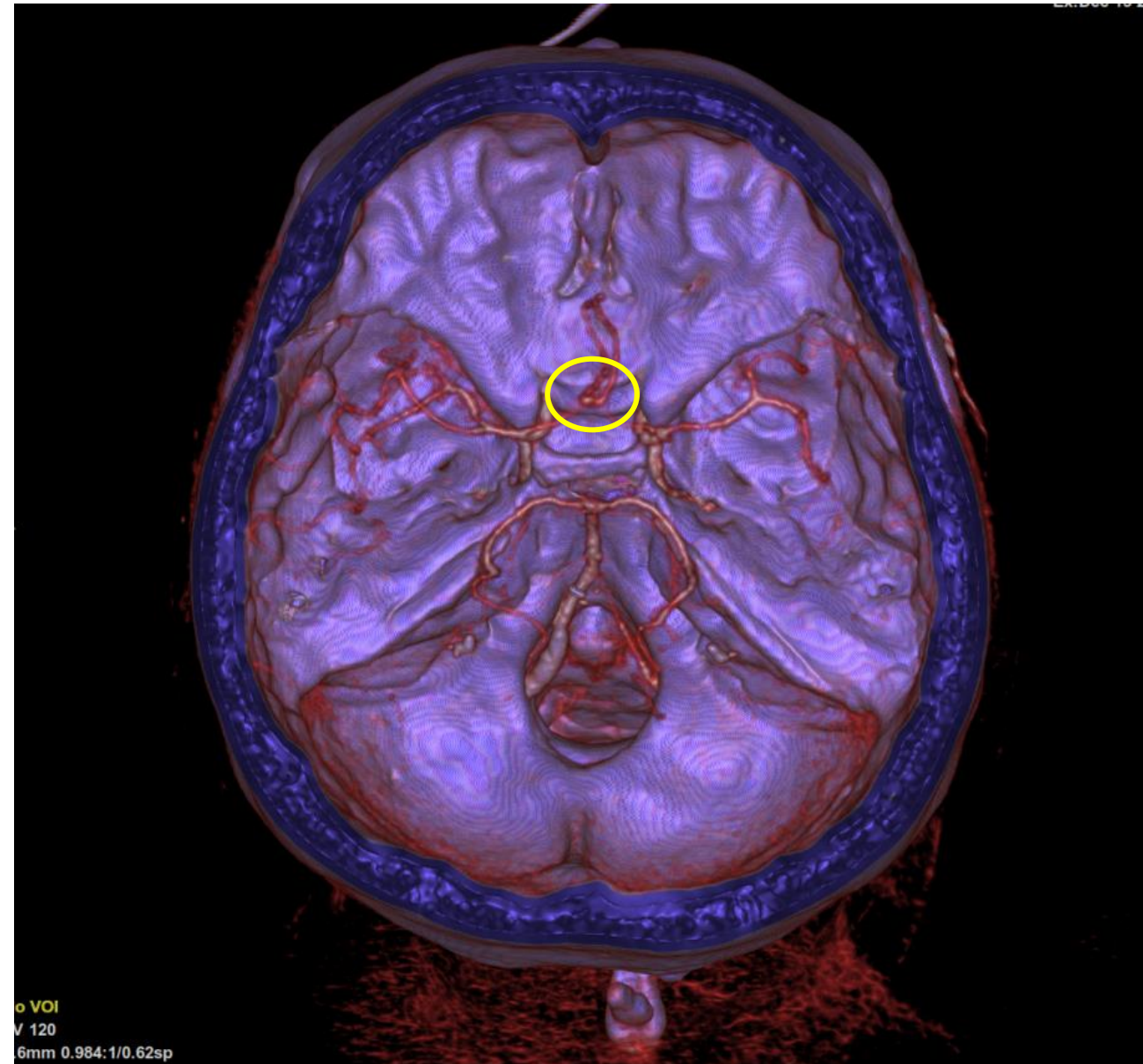
→ indicating
Subarachnoid hemorrhage(SAH).



2024/12/15 CTA

- An aneurysm in ACoA

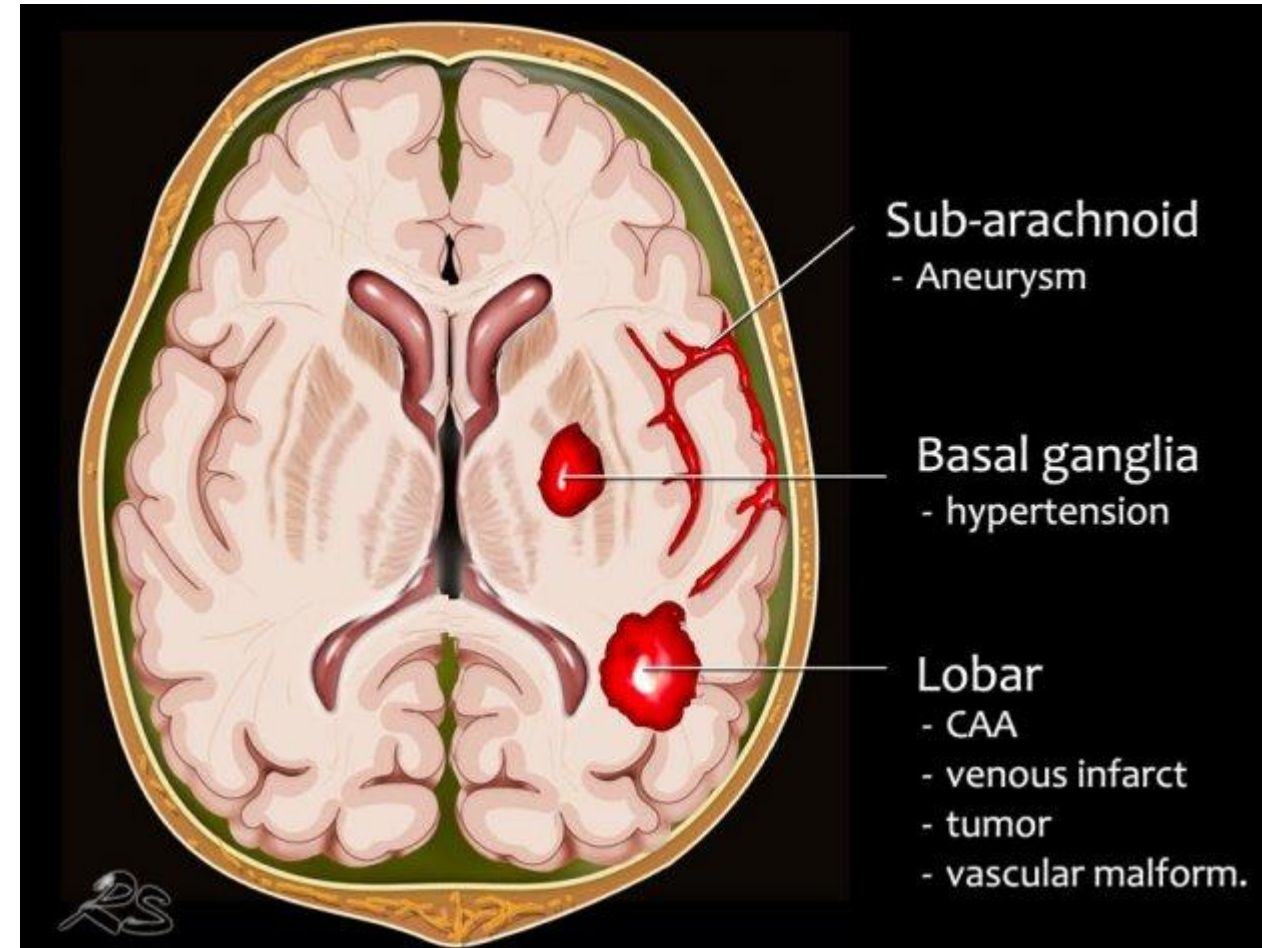
→ 此為一ACoA之 Aneurysm leak所造成的SAH，後續可作Surgical clipping或是coil embolization



Learning Objective 1
How to differentiate SAH
in the aspect of CT?

Localization of hemorrhage

- Subarachnoid Hemorrhage (SAH)
 - Rupture of an **aneurysm**
 - Trauma
- Intracerebral Hemorrhage (ICH)
 - **Lobar** Hematoma in
Peripheral regions of a cerebral lobe
 - **Deep** hematoma in the
basal ganglia, pons, or cerebellum



Ref:

<https://radiologyassistant.nl/neuroradiology/hemorrhag>

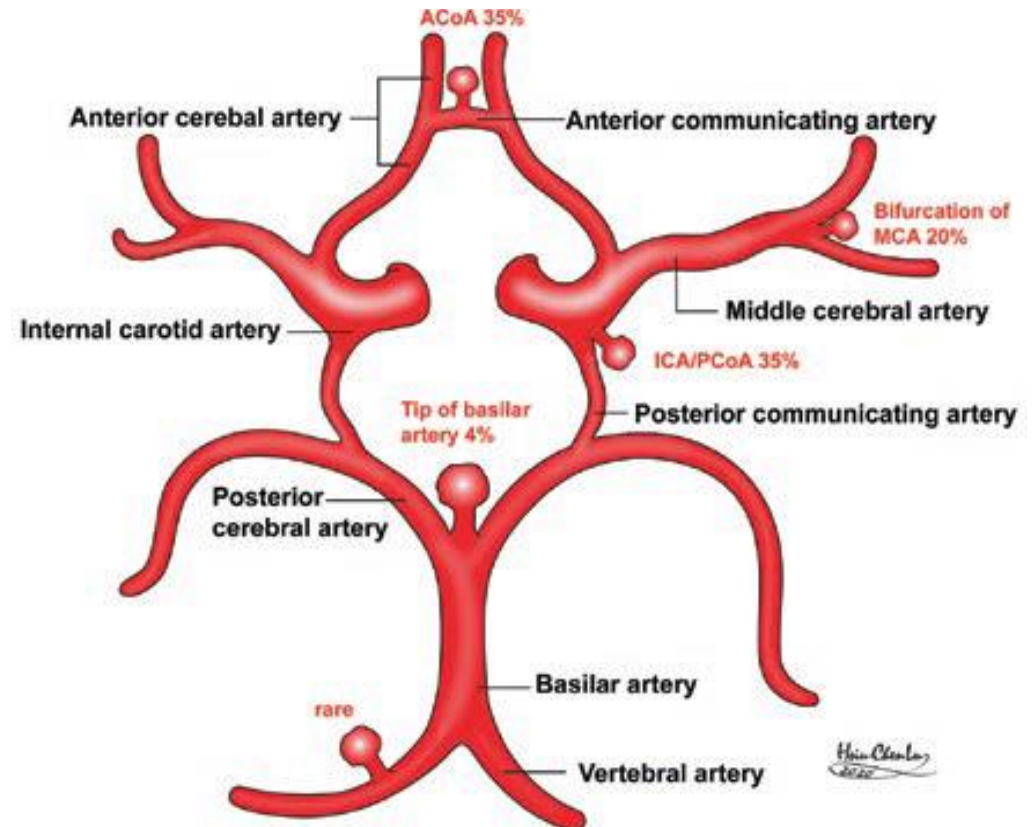
Differential Diagnosis by location

Intraparenchymal	Basal ganglia	}	Hypertension most common
	Pons Cerebellum		
	Lobar hematoma	}	Cerebral amyloid angiopathy Venous infact Vascular malformation Tumor - metastases Hypertension
Subarachnoidal	Aneurysm (80%) Non-aneurysmal perimesencephalic (10%)		
	less common	}	Arteriovenous malformations Drug abuse - Cocaine, XTC PRESS Intracranial dissection

Ref: <https://radiologyassistant.nl/neuroradiology/hemorrhage/non-traumatic-intracranial-hemorrhage>

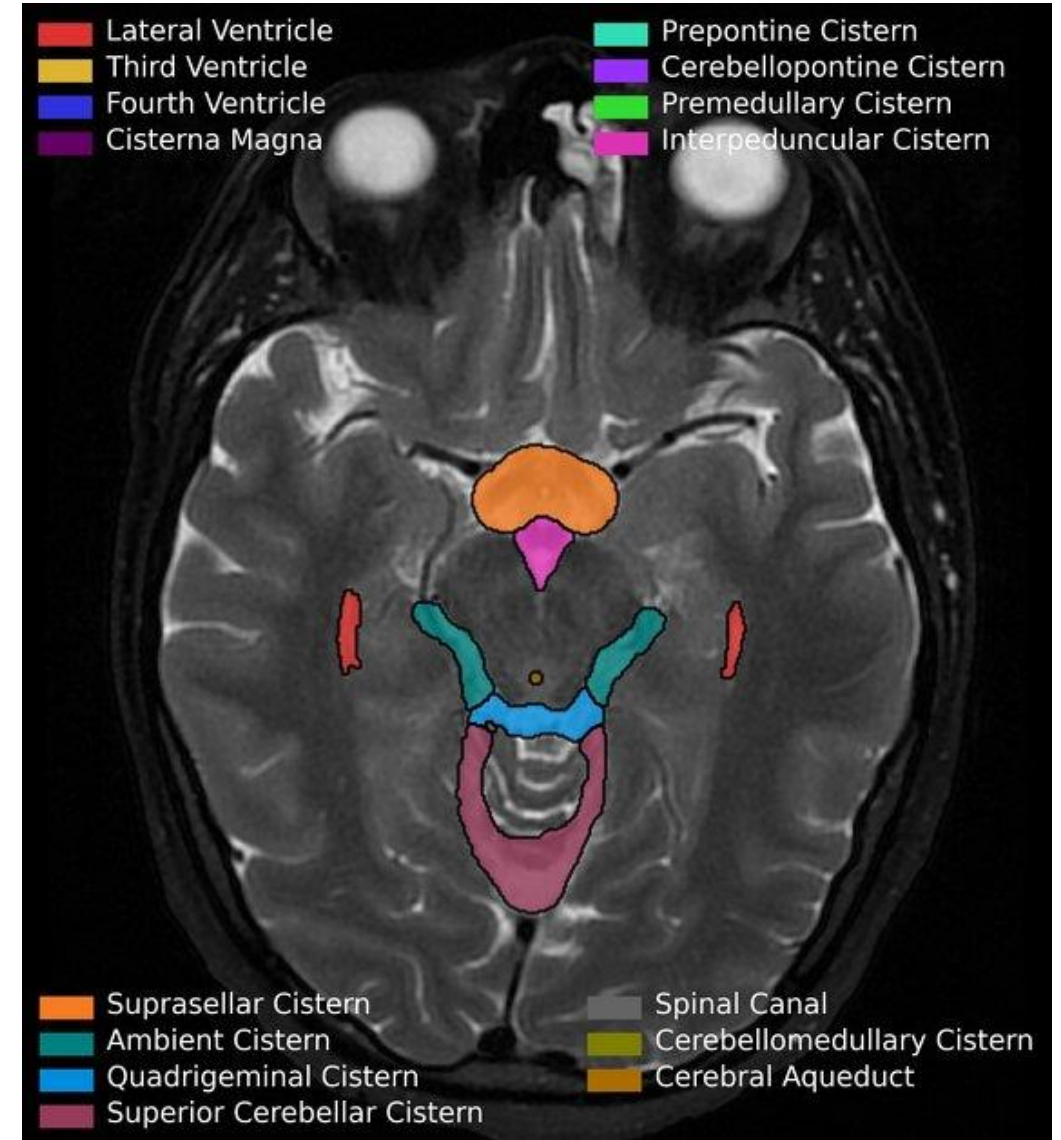
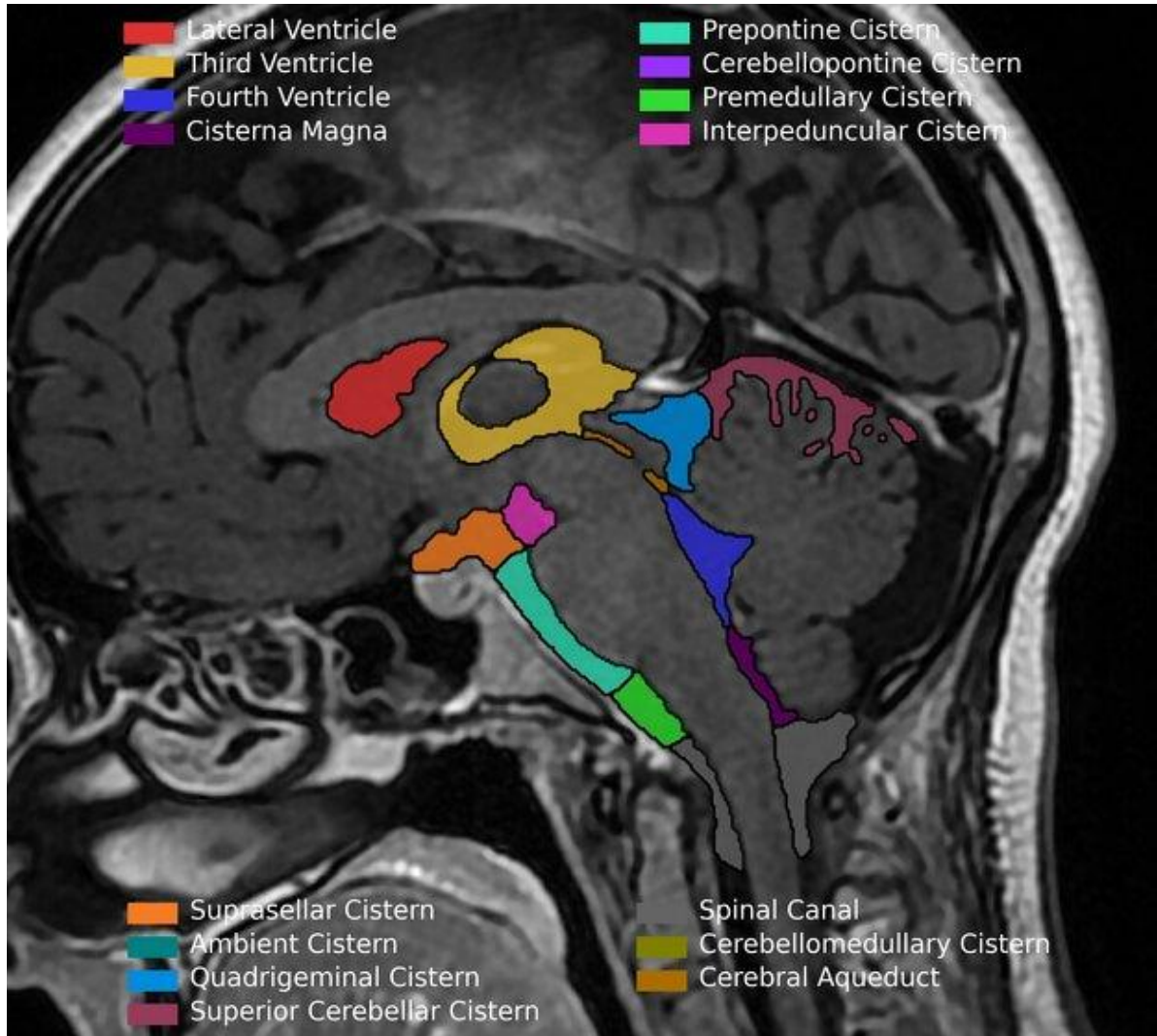
Typical Locations of Aneurysm

- In the the Suprasellar cistern
 - ACoA
 - ICA/PCoA
 - Tip of the basilar artery
- In the Sylvian fissure
 - Bifurcation of MCA



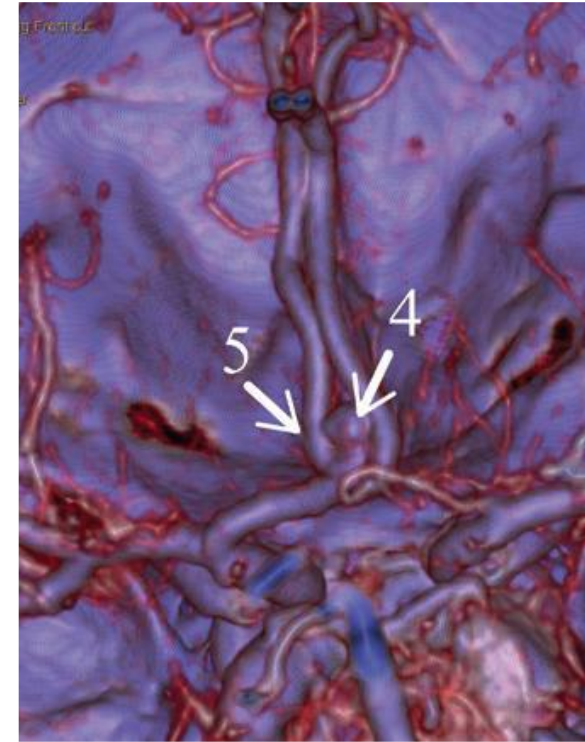
Ref: Shen, W.-C. (2021). *Diagnostic Neuroradiology: A practical guide and cases*. Springer.

Subarachnoid cistern anatomy



Ref: <https://radiopaedia.org/cases/subarachnoid-cisterns->

CT finding in SAH



CT: Blood clots in (1)Suprasellar cistern, (2)ambient cistern, (3)Bilateral Sylvian fissure

CTA: (4) An aneurysm in the ACoA

Ref: Shen, W.-C. (2021). *Diagnostic Neuroradiology: A practical guide and cases*. Springer

Summary of Spontaneous SAH

1. 最常見病因為Aneurysm rupture，一旦破裂容易於蛛網膜下腔堆積血液
2. 症狀包括突發性劇烈頭痛、頭暈、噁心、嘔吐、意識變差、脖子僵硬、畏光等meningeal sign
3. 處置原則是要找到Aneurysm的位置，後續作Surgical clipping或是coil embolization
4. Pure SAH僅靠CT難以找到Aneurysm的位置，必須作CTA；若SAH合併ICH，以CT即可臆測