

A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide and partially overlapping the text.

68 y/o unresponsive male

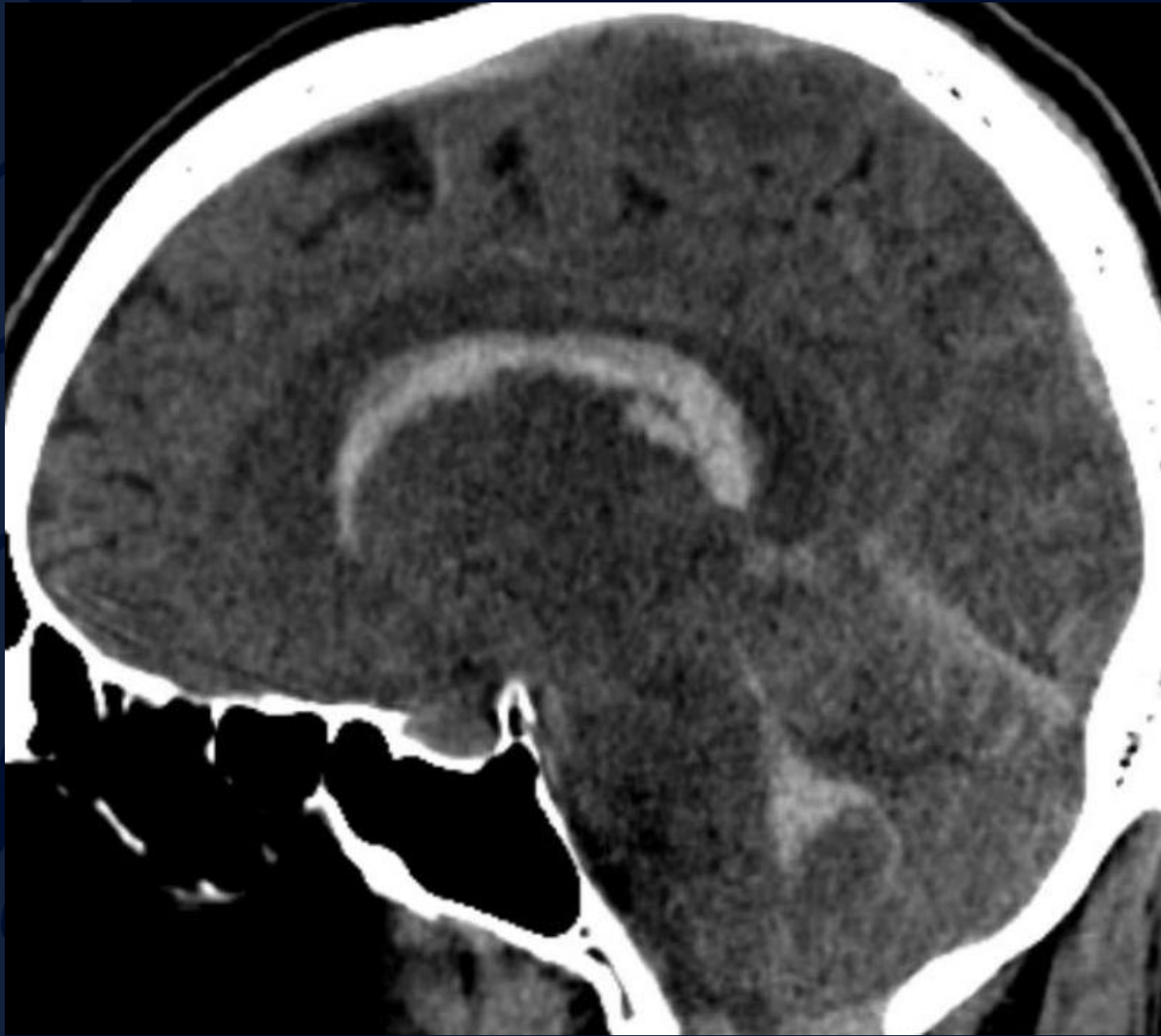
Samantha Huq, MD, MPH

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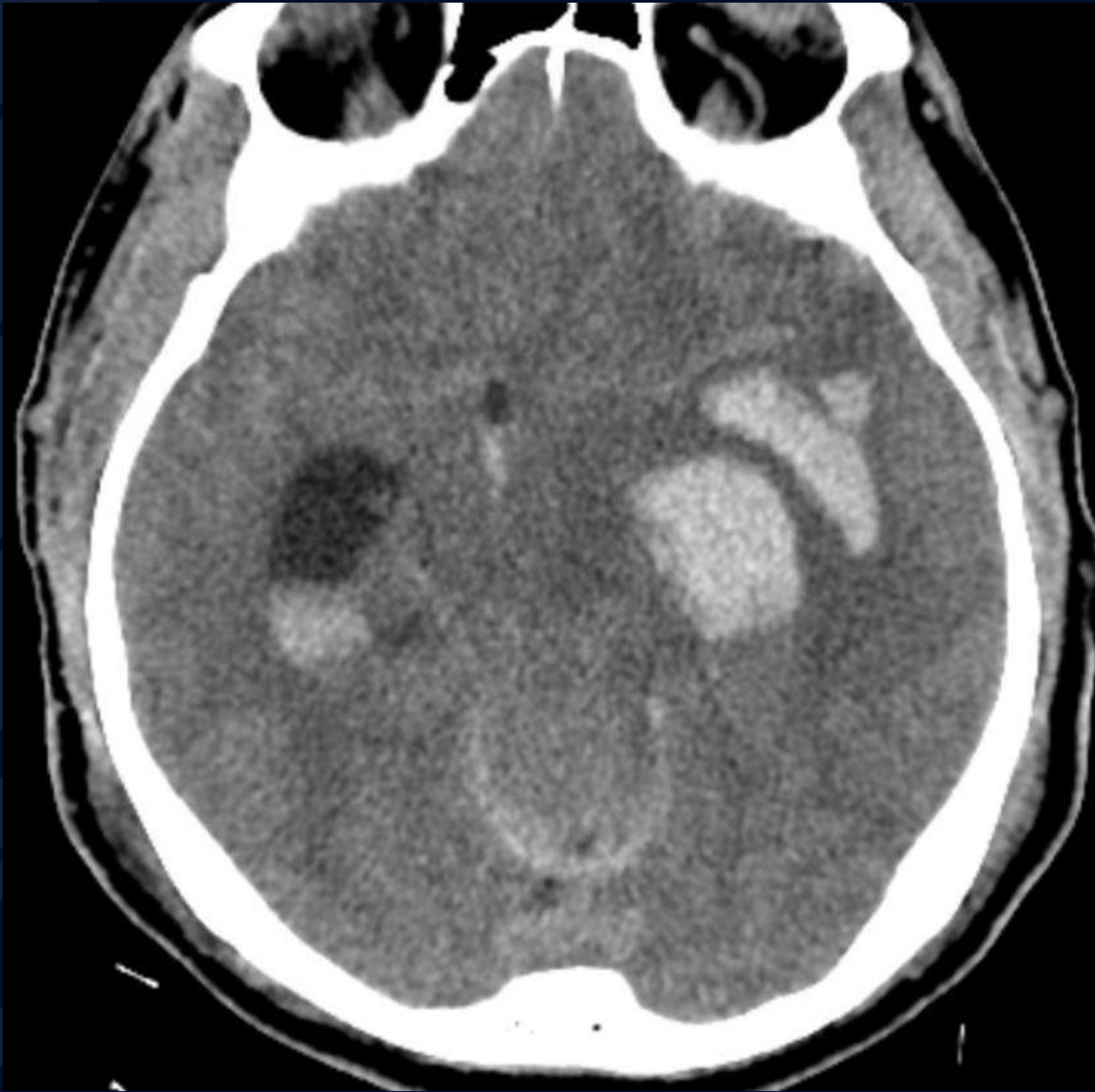
**UConn**  
**HEALTH**

RADIOLOGY



**UConn**  
**HEALTH**

RADIOLOGY



**UConn**  
**HEALTH**

RADIOLOGY



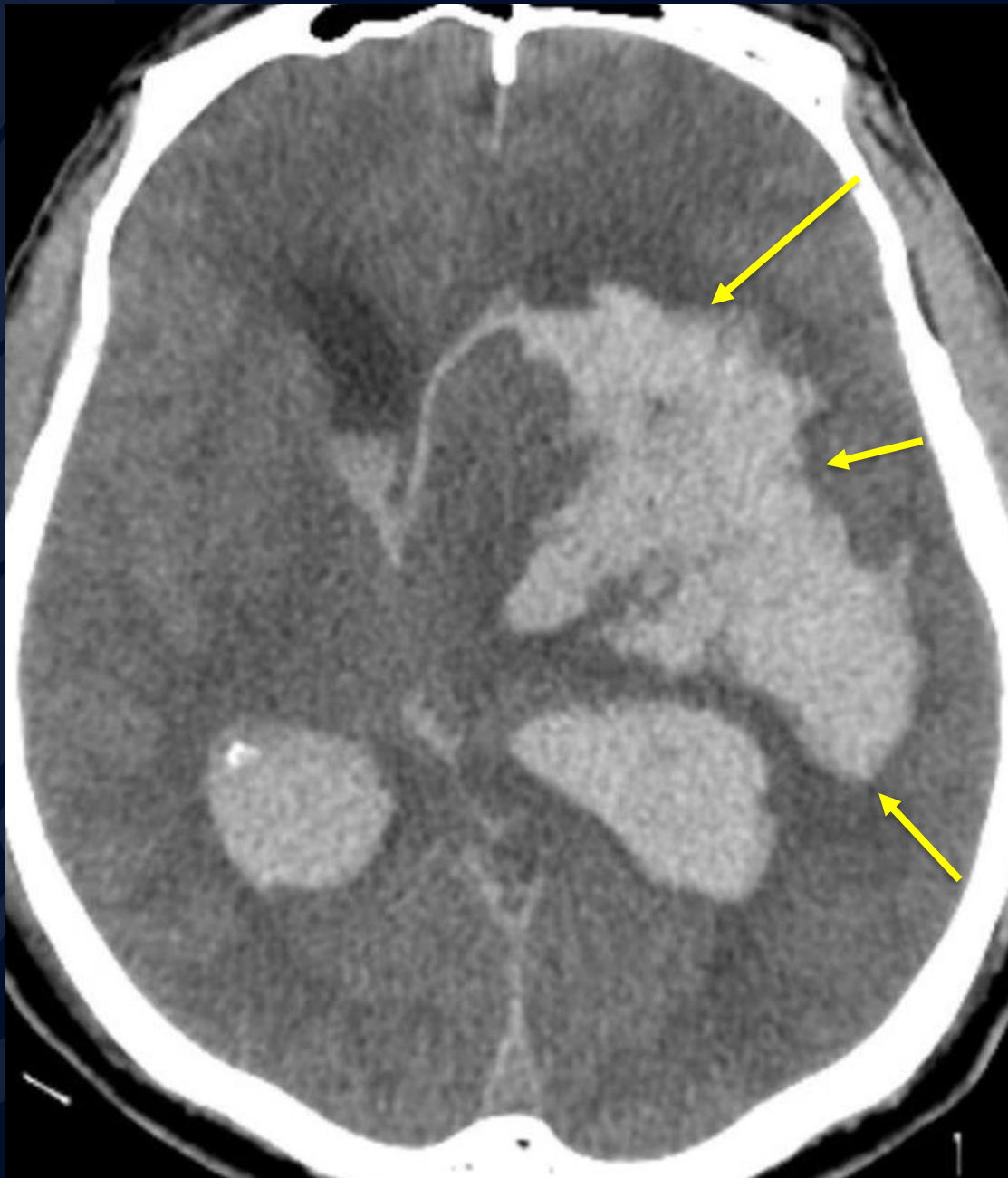
**UCONN**  
**HEALTH**

RADIOLOGY



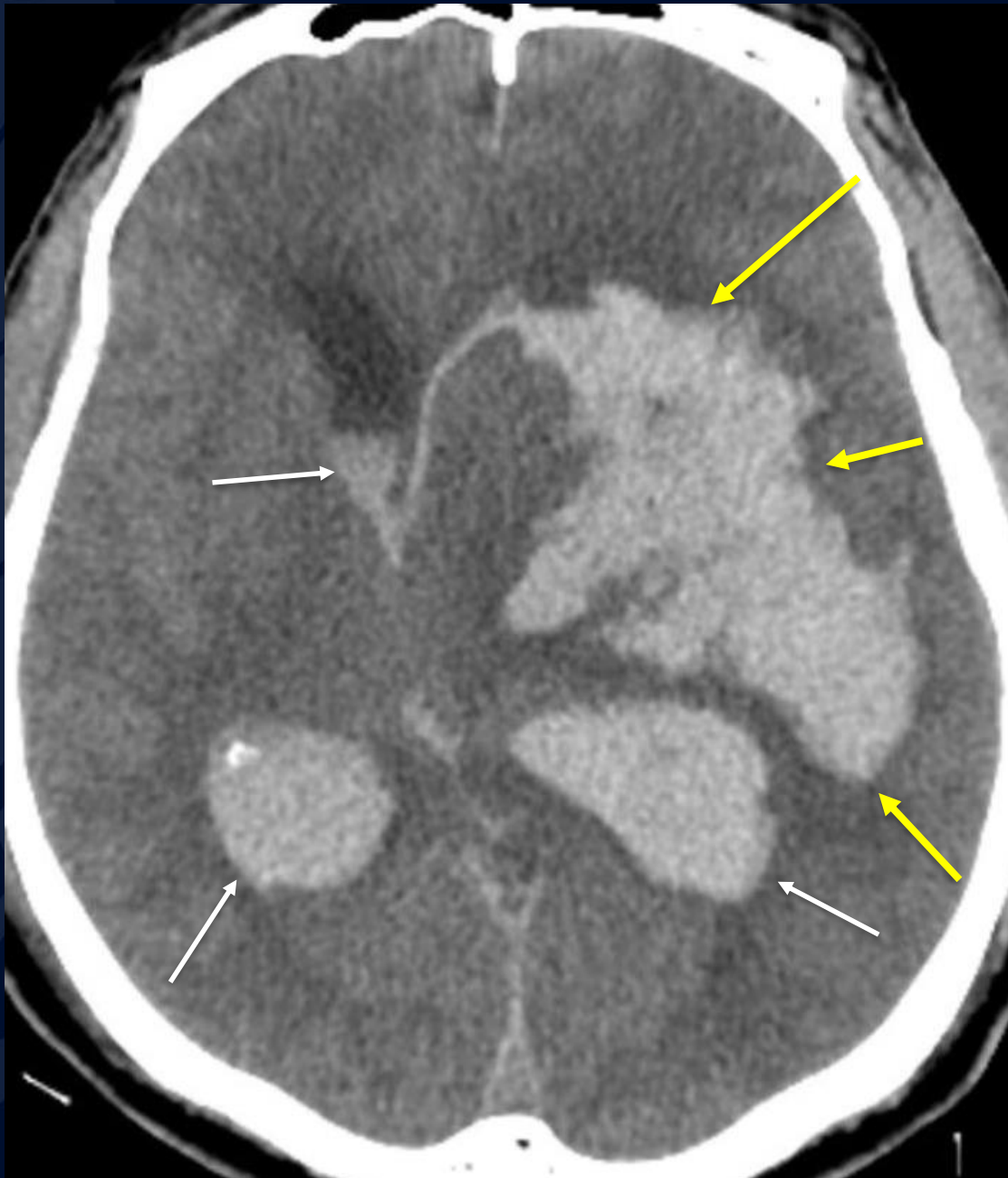
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# Hypertensive intracerebral hemorrhage

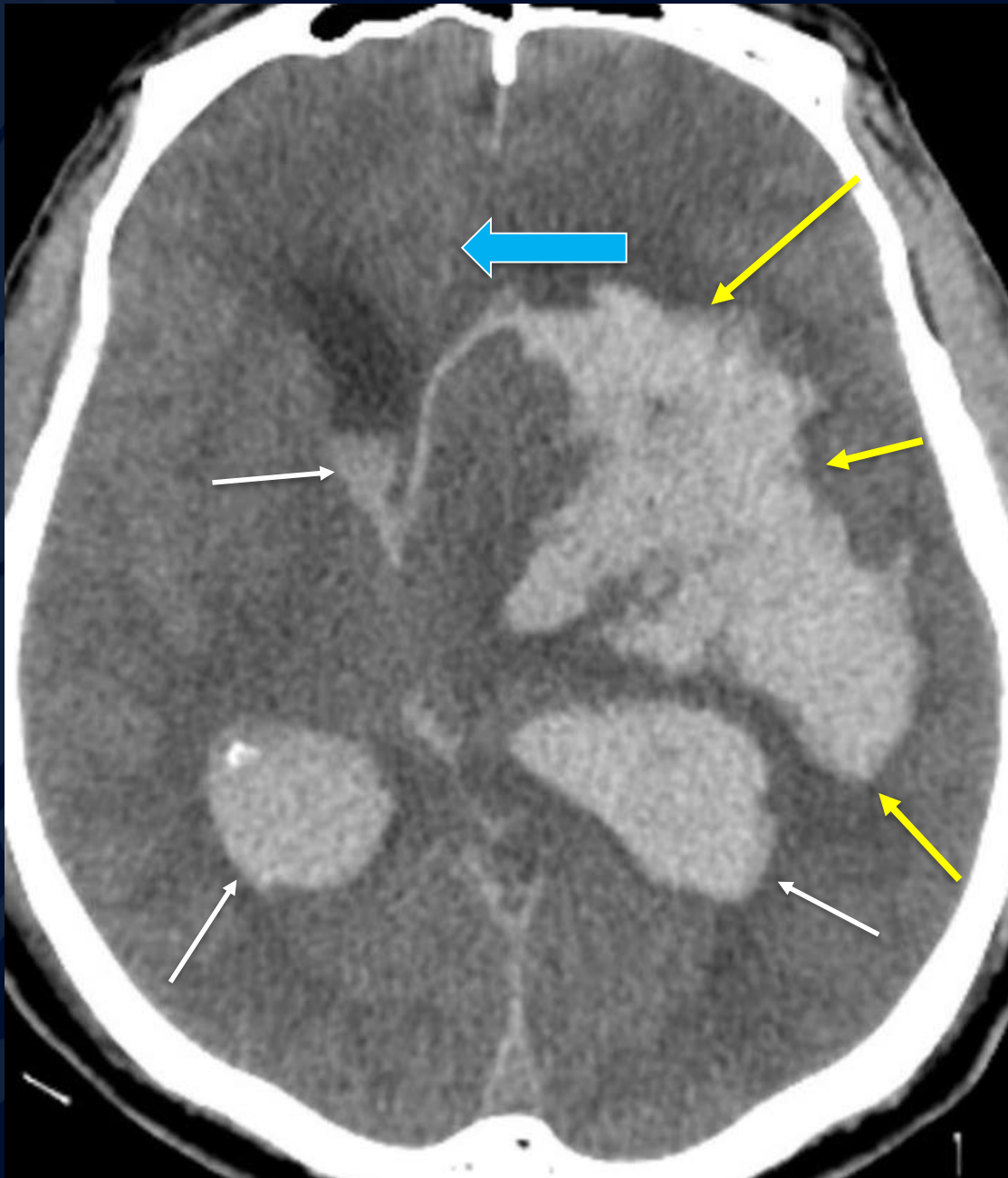


Axial NECT of the head demonstrates intraparenchymal hemorrhage (yellow arrows)

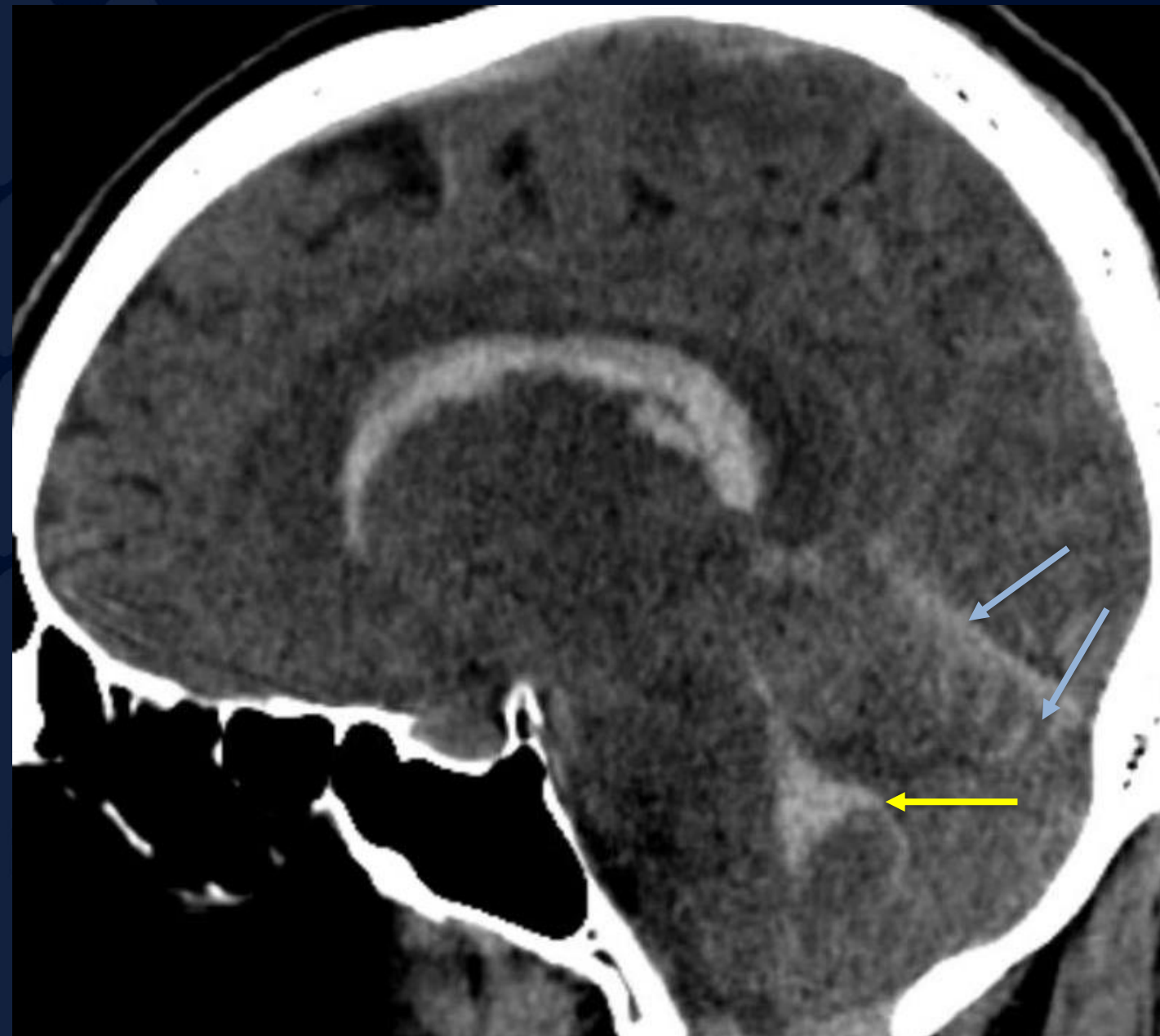




Axial NECT of the head demonstrates intraparenchymal hemorrhage (yellow arrows) with extension of blood into the ventricular system (white arrows).



Axial NECT of the head demonstrates intraparenchymal hemorrhage (yellow arrows) with extension of blood into the ventricular system (white arrows). There is subfalcine herniation to the right due to mass effect (blue arrow).



Intraventricular hemorrhage with extension into the fourth ventricle (yellow arrow). Subarachnoid hemorrhage is also present (blue arrows)

# Hypertensive intracerebral hemorrhage

## Intracranial hemorrhage:

Hypertension: Basal Ganglia, Thalamus, Cerebellum, Pons

Amyloid Angiopathy: Lobar, Elderly

Trauma: Cortical Contusions, Diffuse Axonal Injury

Arteriovenous Malformation

Hemorrhagic Transformation of Arterial Ischemic Infarct

Venous Infarct

Tumor: Glioblastoma, Mets

# Hypertensive intracranial hemorrhage

## Imaging features

NECT: round or oval hyperdense parenchymal mass

Heterogeneous density if coagulopathy or active bleeding

Intraventricular extension of hemorrhage common

Mass effect, hydrocephalus, herniation common

## Pathology

HTN can lead to chronic changes within the vessel wall

– Charcot Bouchard aneurysm (0.3-0.9mm)

- thrombosis, leak (microhemorrhage), rupture

# References

- Alexander MD et al: Association between Venous Angioarchitectural Features of Sporadic Brain Arteriovenous Malformations and Intracranial Hemorrhage. AJNR Am J Neuroradiol. ePub, 2015
- Kranz PG et al: Spontaneous brain parenchymal hemorrhage: an approach to imaging for the emergency room radiologist. Emerg Radiol. 22(1):53-63, 2015
- Sampath Kumar NS et al: Multiple spontaneous hypertensive intracerebral hemorrhages. J Stroke Cerebrovasc Dis. 24(1):e25-7, 2015