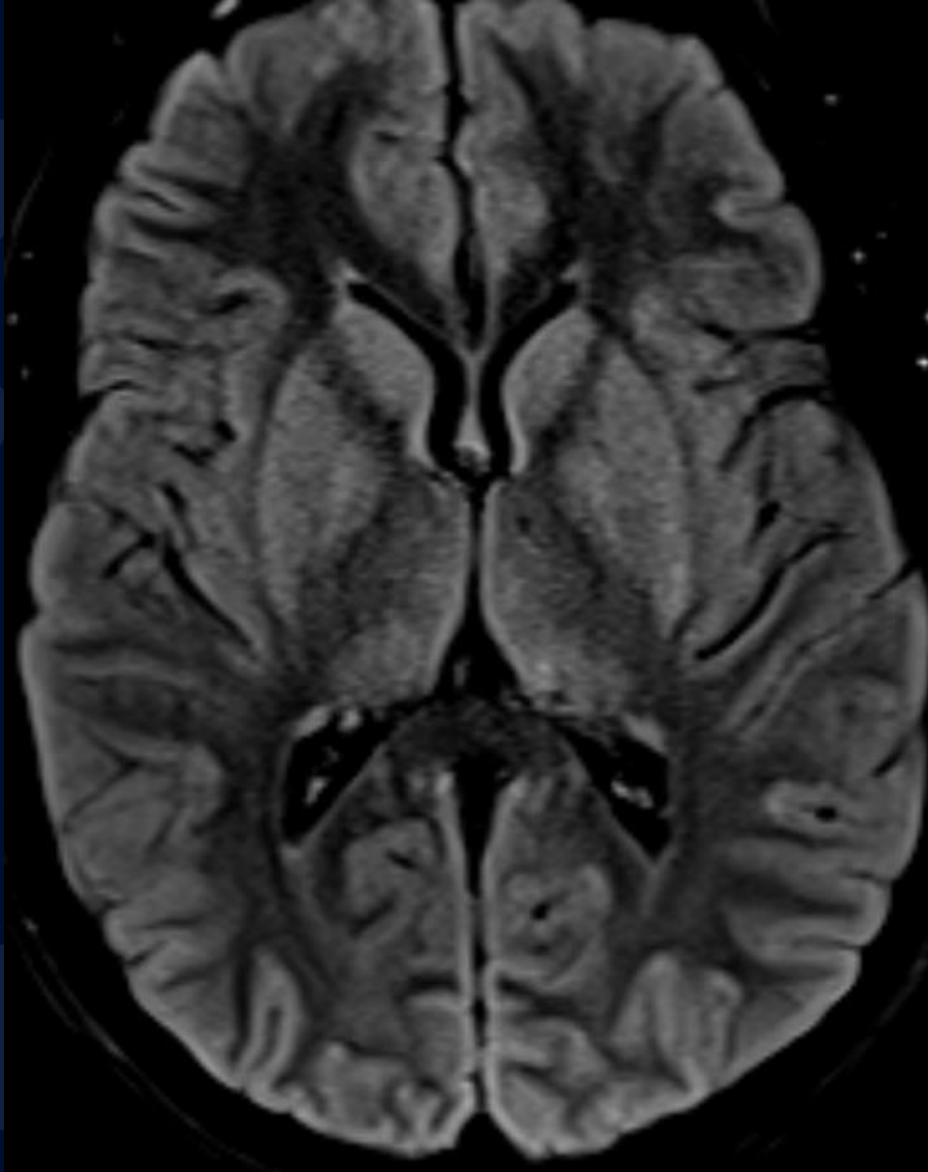
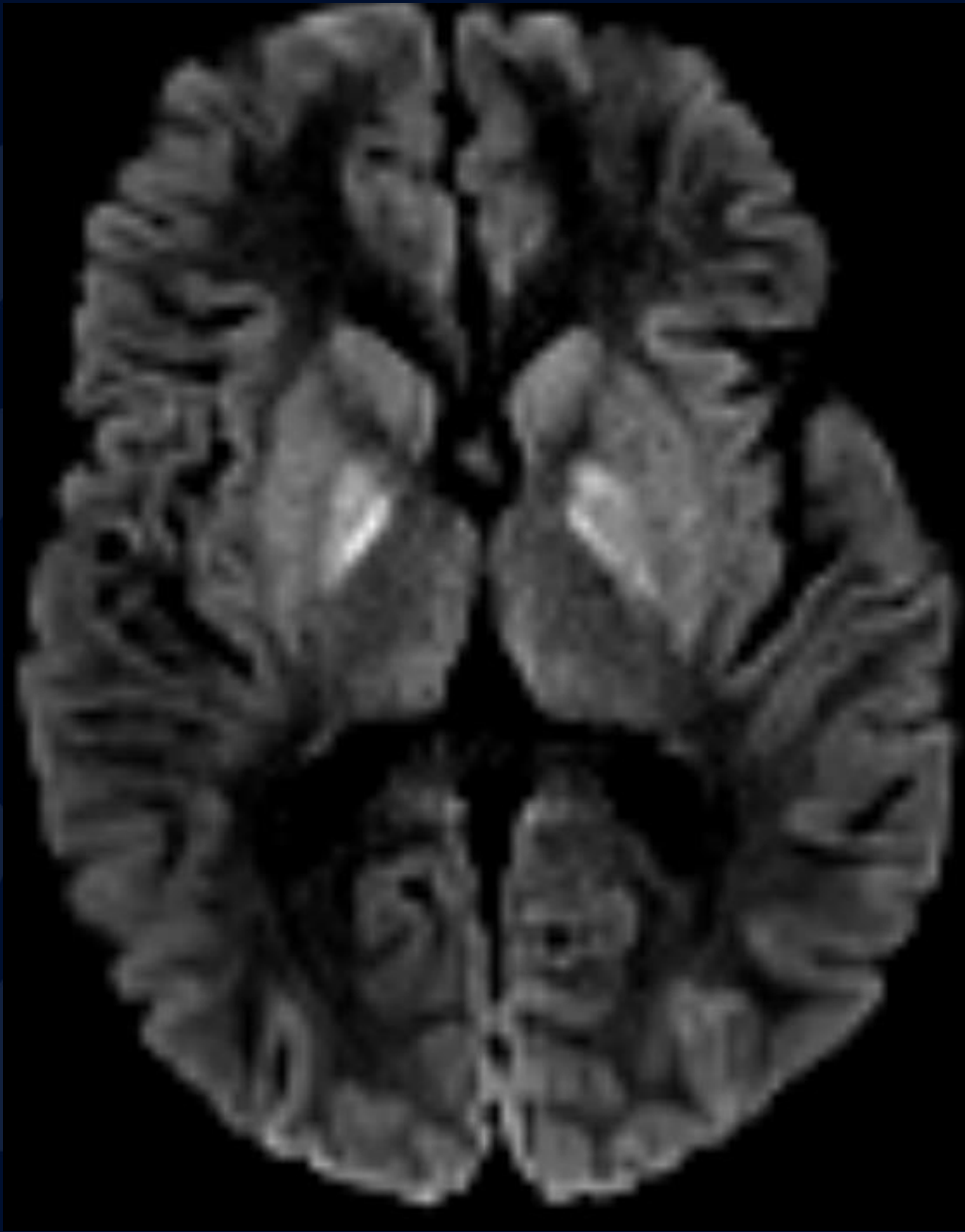
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The leaf's edge is serrated.

26 y/o female
History withheld

Sarah Kwok, MD
Aladdin Tarakji, MD





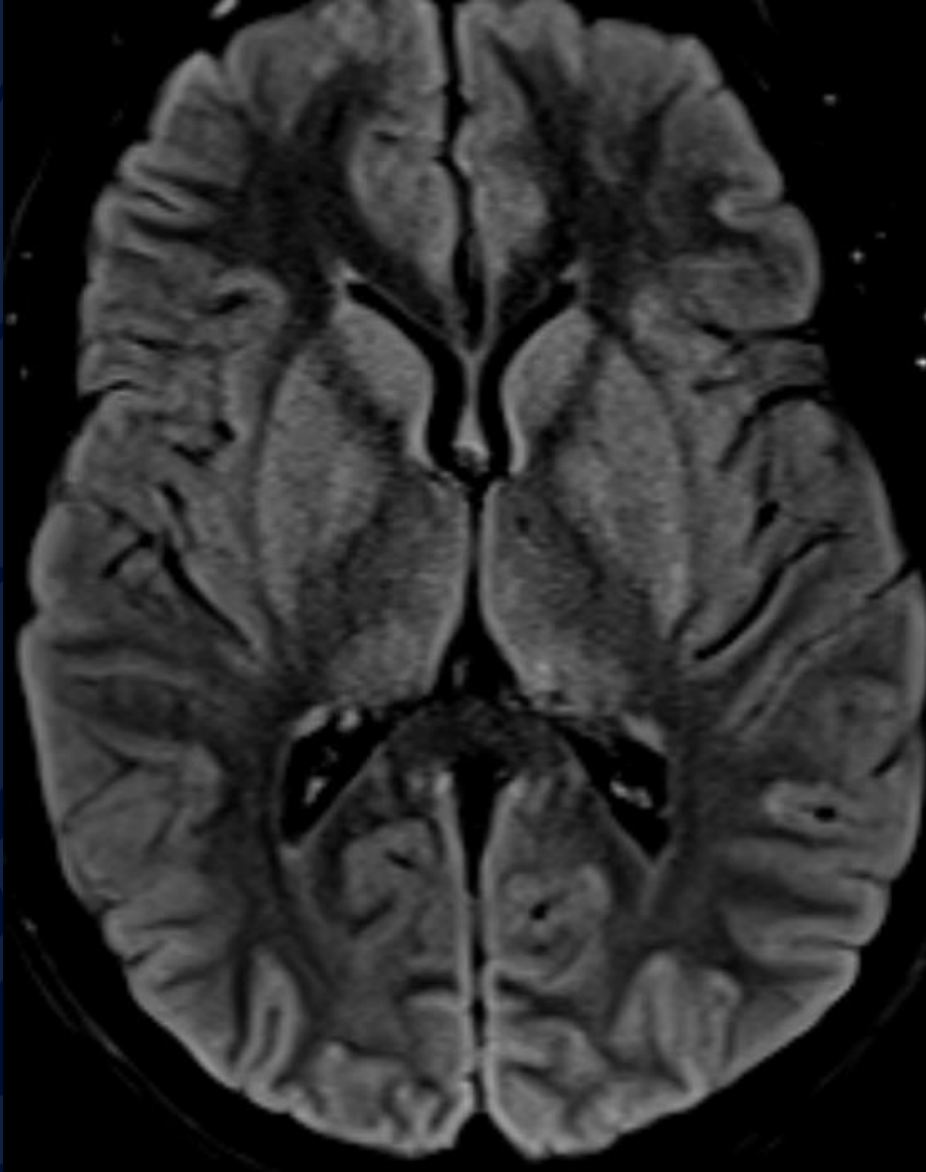


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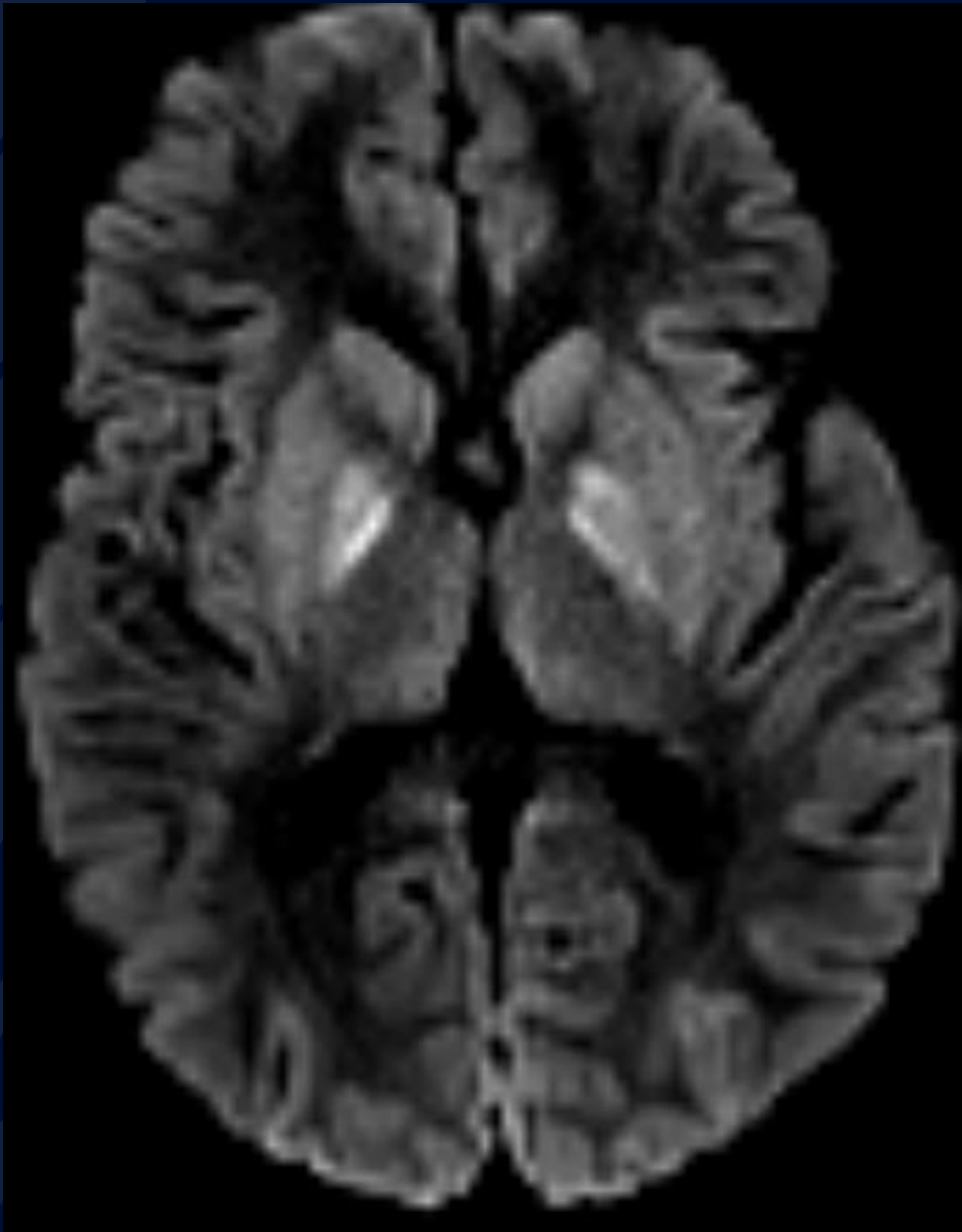
Globus Pallidus Infarcts

**Globus Pallidus Infarcts secondary to
Anoxic Brain Injury**

**Patient had H/O depression
s/p suicide attempt
(asphyxiation due to hanging)**



Relative
hyperintensity of
globus pallidus is
seen on FLAIR



DWI
demonstrates
diffusion
restriction of
globus pallidus,
due to infarction

Physiologic Effects of Hanging Injury

External compression of neck leads to:

- Autonomic reflex activity
 - Pressure on carotid areas/vagal sheath → changes in systemic vascular resistance and cardiac output → potential cardiac arrest
- Airway compromise
 - Tongue and epiglottis move upwards → upper airway obstruction
- Occlusion of blood flow
 - Direct compression of vessels (carotid arteries, jugular veins)

These can all contribute to **hypoxic-ischemic brain injury**.

Hypoxic Ischemic Brain Injury

- Vascular Anatomy:
 - The basal ganglia is supplied by the lenticulostriate branches of the middle cerebral artery. These smaller, terminal vessels are more susceptible to ischemia.
- Imaging Findings:
 - There is restricted diffusion in the bilateral basal ganglia. The bilateral findings are suggestive of global hypoxia/hypoperfusion of the brain.

Hypoxic Ischemic Brain Injury

Etiologies:

- Cardiac arrest
- Vascular catastrophe
- Carbon monoxide poisoning
- Head trauma

Goals of Neurologic Treatment:

- Maintain cerebral oxygenation
- Prevent increased intracranial pressure
 - Hyperventilation
 - Osmotic diuresis—mannitol
- Decrease cerebral metabolic rate
 - Hypothermia
 - Prevent seizure activity

References

- McHugh, T. P., & Stout, M. (1983). Near-hanging injury. *Annals of emergency medicine*, 12(12), 774-776.
- Kwok S. Tarakji A. Globus Pallidus Infarcts. *Radiology Online*. (2020)