

## BITHALAMIC ACUTE STROKE: ARTERY OF PERCHERON. CLINICAL CASE.

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### Background

**Artery of Percheron (AOP)** is a variant in which a single perforating artery ensure bilateral blood supply to the paramedian thalamic nuclei and rostral midbrain and is described in 4%-12% of the population. Occlusions AOP represent 0.1-2% of total ischemic strokes, indicating that this type of stroke is quite rare [3].

**Material and methods:** A case of 69-year-old woman, admitted to the Institute of Emergency Medicine with **bilateral thalamus stroke** due to Percheron artery occlusion will be discussed.

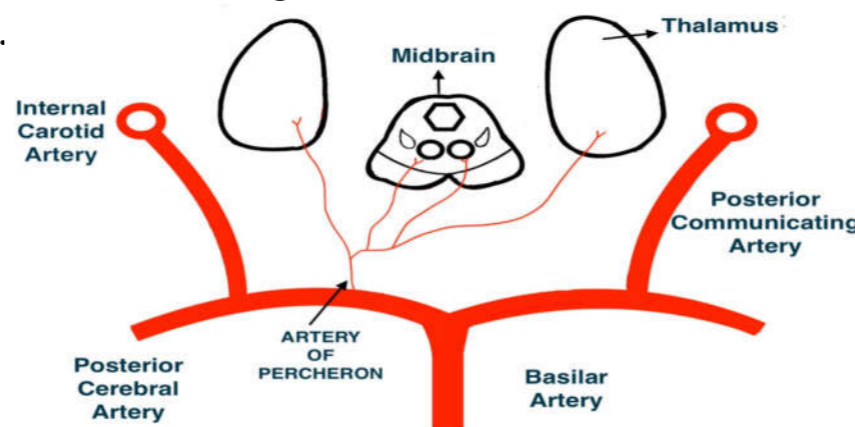


Fig. 1 Variant of perforator supply of thalamus and the rostral midbrain

### Purpose

We report a clinical case of ischemic stroke by **occlusion AOP**. It is necessary to know this variant of ischemia in view of **differential diagnosis** between deep cerebral venous thrombosis and top basilar syndrome.

**Results:** On admission, the patient was in a **coma**, **tetraparesis** was noted during neurological exam and **NIHSS score was of 24p**. Brain-Computer Tomography (CT) showed **bithalamic stroke**. CT angiography didn't detect any abnormality.

Cause	Etiology	Features
Vascular	Deep cerebral venouse thrombosis	<u>Clinical aspects</u> - headache, vomiting, papilar edema and seizure [1]. <u>Radiological aspect</u> - On CT images, abnormally hyperdense veins and clots in the sinuses can be observed as T1 hyperintensity on RM scans [2].
	Top basilar syndrome	<u>Clinical aspects</u> - visual field defects, agitated behaviour and amnesia [1]. <u>Radiological aspect</u> - infarcts in the top of the basilar syndrome are, normally, asymmetrical and, generally, affect additional arterial territories [1].

Table 1. Differential diagnosis of bilateral thalamic lesions

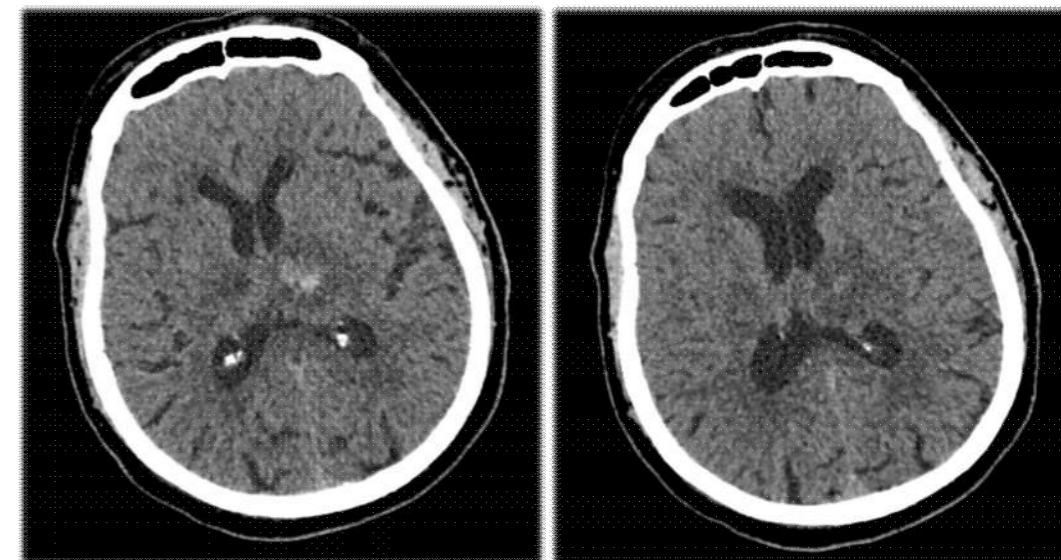


Fig. 2 Head computed tomography (axial) performed on the day of admission was ischemic stroke in the basal ganglia (thalamus) bilaterally, with hemorrhagic transformation on the left.

**Conclusion:** AOP infarcts are quite rare. Differential diagnosis in cases of bitalamic infarction usually include AOP stroke, top basilar syndrome and deep cerebral venous thrombosis.

### Keywords:

Artery of Percheron, Infarct, Thalamus, Computer tomography.

### References

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