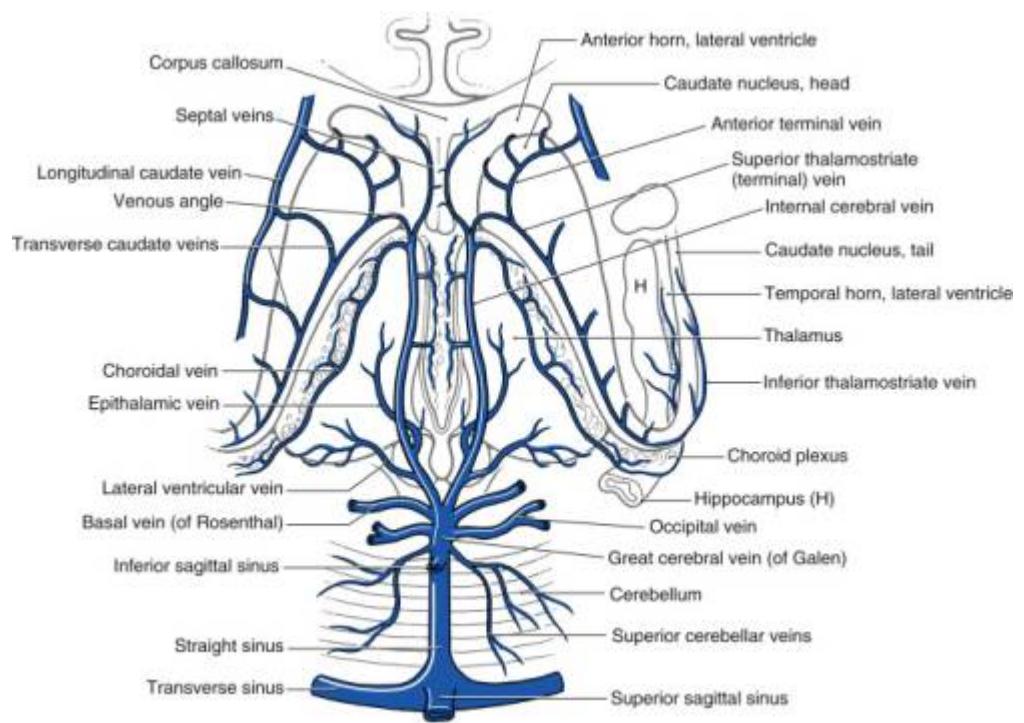


# Basal vein of Rosenthal



The basal vein of Rosenthal originates on the medial surface of the **temporal lobe** and runs posteriorly and medially. It passes lateral to the **midbrain** through the **ambient cistern** to drain into the **vein of Galen**. It is closely related to the **posterior cerebral artery** (PCA).

In the literature recent studies have suggested a possible contribution by primitive variants of Basal vein of Rosenthal (BVR) in the pathogenesis of **idiopathic subarachnoid hemorrhage** (ISAH), commonly grouped according Watanabe classification (type A, B and C).

Sabatino et al, evaluated the prevalence of anatomical variants of BVR in ISAH.

Venous drainage at **angiography** was retrospectively analyzed in 40 patients with ISAH and in 40 with **unruptured aneurysms** as controls.

Previous studies displayed a significant prevalence of BVR type C variants in ISAH. Conversely recognized variant B as prevalent, in which the BVR bifurcates to drain anteriorly into the **uncal vein** and posteriorly into the **Galenic system**. Similarly to variant C (in which the BVR drains via perimesencephalic "bridging" veins into cavernous, sphenoparietal, petrosal sinus or directly into transverse sinus) also variant B might be subjected to those stress mechanisms and intrinsic system 'fragility' and for reasons yet to determine, sets off a consequent hemorrhage with clinical and radiological features typical of ISAH <sup>1)</sup>.

There is a relationship between perimesencephalic subarachnoid hemorrhage (P-SAH) and Basal Vein of Rosenthal primitive drainage type. P-SAH risk increases in parallel with decreasing caliber of BVR in patients with normal drainage pattern <sup>2)</sup>.

<sup>1)</sup>

Sabatino G, Della Pepa GM, Scerrati A, Maira G, Rollo M, Albanese A, Marchese E. Anatomical variants of the basal vein of Rosenthal: prevalence in idiopathic subarachnoid hemorrhage. Acta Neurochir (Wien). 2014 Jan;156(1):45-51. doi: 10.1007/s00701-013-1907-6. Epub 2013 Oct 18. PubMed PMID: 24333333.

24136678.

2)

Buyukkaya R, Yıldırım N, Cebeci H, Kocaeli H, Dusak A, Ocakoğlu G, Erdoğan C, Hakyemez B. The relationship between perimesencephalic subarachnoid hemorrhage and deep venous system drainage pattern and calibrations. Clin Imaging. 2014 Jan 13. pii: S0899-7071(14)00006-0. doi: 10.1016/j.clinimag.2014.01.003. [Epub ahead of print] PubMed PMID: 24559748.

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