Cerebral veins

see Cortical veins.

see Great cerebral vein

Cerebral veins are very thin-walled compared to arteries. The larger pial veins have circumferentially oriented smooth muscle that is not present in veins in the parenchyma. Unlike veins in the periphery, cerebral veins do not contain valves [1].

The deep or central veins consist of subependymal veins, internal cerebral veins, basal vein, and the great vein of Galen.

These veins drain the brain’s interior, including the deep white and gray matter surrounding the lateral and third ventricles or the basal cistern and anastomose with the cortical veins, emptying into the superior sagittal sinus (SSS). Venous outflow from the SSS and deep veins is directed via a confluence of sinuses toward the sigmoid sinuses and jugular veins. The cerebellum is drained primarily by two sets of veins, the inferior cerebellar veins and the occipital sinuses. The brain stem is drained by the veins terminating in the inferior and transverse petrosal sinuses.

The cerebral veins are divisible into

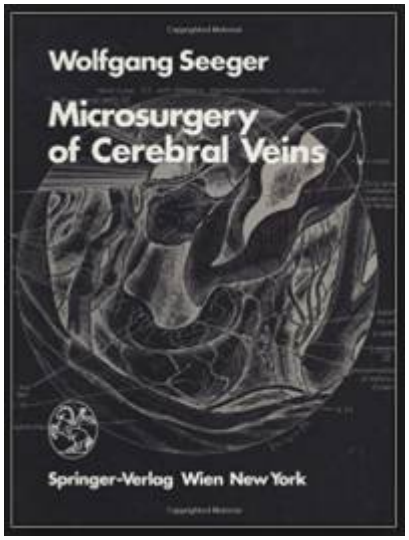
External cerebral veins and internal cerebral veins groups according to the outer surfaces or the inner parts of the hemispheres they drain into.

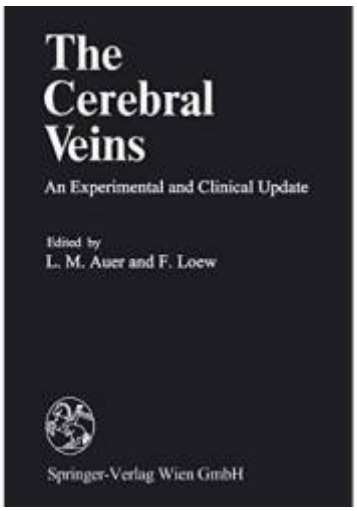
As a general principle, sacrifice of cerebral veins at surgery is avoided. However, at times sacrifice of a vein may be desirable to increase surgical exposure. At present, no method exists to predict whether such sacrifice will be accommodated by the presence of collateral venous drainage [2].

Visualization

Susceptibility Weighted Imaging (SWI) is an MRI sequence with improved visualization of susceptibility differences between tissues, particularly sensitive for brain veins.

Books





1)
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