The vertebral venous plexus, of which there is an external and internal part, provides venous drainage for the individual vertebrae of the spinal column. The internal venous plexus, which is further subdivided into anterior and posterior parts, lies within the vertebral canal (but outside the dura mater) and drains the internal aspect of the vertebrae. The posterior internal plexus forms large plexiform veins anterior to the vertebral arches and ligamentum flava, superficial to the dura mater.

The posterior internal plexuses are connected to the anterior internal vertebral venous plexus at each vertebral level. They communicate freely with the external vertebral venous plexuses and in the cervical region, have numerous rostral communications, such as the occipital and sigmoid sinuses, basilar plexuses, venous plexuses of the hypoglossal canal and condylar emissary veins.

The internal venous plexus drains into the vertebral (near the foramen magnum), posterior intercostal, lumbar and lateral sacral veins.