Posterior choroidal artery

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- Embolic Hippocampal Infarct From Ipsilateral Tandem Carotid Stenosis: A Case Report and Lesson on Hippocampal Dual Vascular Supply
- Age-Dependent Risk Factors for Hemorrhagic Events in Moyamoya Disease: The Role of Collateral Vessels
- An Atlas of Neonatal Neurovascular Imaging Anatomy as Depicted with Microvascular Imaging: The Intracranial Arteries
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The posterior choroidal artery is not in fact a single artery, although it is commonly referred to as such. The posterior choroidal arteries, often numbering up to 10 or 11 per hemisphere, are divided into medial posterior choroidal artery and lateral posterior choroidal artery groups. They usually arise from the P2 segment of the posterior cerebral artery.

The posterior choroidal artery (also known as the posterior choroidal artery complex or PCA) is an important blood vessel in the brain that supplies blood to several structures in the brain, including parts of the choroid plexus, thalamus, and midbrain. Here are some key points about the posterior choroidal artery:

Origin: The posterior choroidal artery typically arises from the posterior circulation of the brain's arterial system. Specifically, it often branches off from the posterior cerebral artery (PCA), which itself is a branch of the basilar artery.

Course: The posterior choroidal artery follows a course that takes it into the lateral and third ventricles of the brain. It runs through the choroid fissure, a space between the thalamus and the brainstem.

Branches and Distribution:

The posterior choroidal artery has several branches that supply various structures in the brain.

It provides blood to parts of the choroid plexus, which produces cerebrospinal fluid (CSF) in the ventricles.

It also supplies the thalamus, which is a central structure in the brain involved in sensory processing, consciousness, and other functions.

Some branches of the posterior choroidal artery extend into the midbrain.

Function: The blood supplied by the posterior choroidal artery is essential for the production of

cerebrospinal fluid (CSF) within the choroid plexus of the ventricles. CSF is a clear fluid that cushions and nourishes the brain and spinal cord.

Clinical Significance: Blockages or abnormalities in the posterior choroidal artery can have significant clinical implications. For example, reduced blood flow to the choroid plexus can impact CSF production, potentially leading to hydrocephalus (an abnormal accumulation of CSF in the brain). Additionally, ischemia (lack of blood supply) to areas supplied by the posterior choroidal artery can cause neurological deficits.

Imaging: The posterior choroidal artery can be visualized using imaging techniques such as angiography, which allows healthcare providers to study the blood vessels in the brain. This is especially important in cases of vascular abnormalities or neurological conditions where blood flow is a concern.

Understanding the anatomy and function of the posterior choroidal artery is important in the context of brain physiology and various neurological conditions, and it plays a role in the management of certain cerebrovascular disorders.