

Occipital lobe infarct

[Occipital lobe infarcts](#) are traditionally attributed to [vertebrobasilar disease](#). However, anatomical studies indicate that in some people the supply of the [posterior cerebral artery](#) is via the carotid system.

Jongen et al., retrospectively studied 212 conventional four-vessel cerebral angiograms. Eighteen subjects were excluded beforehand, because of vascular abnormalities causing important hemodynamic changes. They determined whether a fetal variant was present, and in other cases whether there was a functioning posterior communicating artery.

In 11 % of hemispheres the posterior cerebral artery was exclusively supplied by the internal carotid artery; in a further 46 % of hemispheres the internal carotid artery might contribute, via a patent [posterior communicating artery](#). In 75 % of subjects the internal carotid artery contributed in at least one hemisphere to the blood flow of the posterior cerebral artery.

The implication of the findings is that an occipital lobe infarct can be caused by ipsilateral carotid disease in a proportion of cases between 10 and 60 %. This implies that [carotid endarterectomy](#) might be beneficial in some patients with severe carotid stenosis and infarction in the territory of the posterior cerebral artery ¹⁾.

Occipital lobe [infarction](#) caused by [transtentorial herniation](#) was described based on [computed tomography](#) findings in nine patients. The whole area of the occipital lobe was involved in five patients; some areas were spared in the others. [Infarction](#) other than the ipsilateral [occipital lobe](#) was seen in four areas of nine patients: the ipsilateral posterior limb of the internal capsule, contralateral Ammon's horn, and two contralateral occipital lobes. Hemorrhagic infarction was seen in two patients ²⁾.

A 74-year-old man with vasculopathic risk factors presented to the [emergency room](#) with a chief complaint of peripheral [vision loss](#) resulting from an [intracranial hemorrhage](#) in his right parietal and [occipital lobes](#). Urgent [craniotomy](#) and [ventriculostomy](#) led to a stable clinical condition with subsequent development of a crossed quadrant [homonymous hemianopsia](#) (checkerboard visual field) due to a new right parieto-occipital infarct superimposed on a prior left occipital infarct. This uncommon [visual field defect](#) represents juxtaposed homonymous [quadrantanopias](#) that produce a striking checkerboard appearance that is almost pathognomonic for bilateral occipital lesions ³⁾.

References

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