

Visual Field Defects - Left Upper Quadrantic Anopia

Left Upper Quadrantic Anopia is a loss of vision in the same fourth of each eye. The quarter of the visual field loss is in the superior portion, giving a “pie in the sky” appearance. A lesion of the right Meyer’s loop, part of the optic tract in the temporal lobe, leads to vision loss in the contralateral superior fourth of each eye. An infarct of the middle cerebral artery causes ischemia of the lateral geniculate nucleus, through which Meyer’s loop runs through. This would lesion the loop, leading to upper quadrantic anopia.



PLAY PICMONIC

Visual Field Abnormality

Left Upper Quadrantic Anopia

Left Upper Quadrant Nope-eye

This anopia consists a partial loss of vision in both eyes.

Pie in the Sky

Pizza Pie in the Sky

A quarter of the same visual field is lost in the superior portion of each eye, giving the vision loss an appearance of a slice of “pie in the sky.”

Location of Lesion

Meyer's Loop

Mayor's Loop

Meyer's loop is the ventral part of the pathway that carries information to the visual cortex. It wraps around the inferior horn of the lateral ventricle. Lesion of the loop on one side leads to vision loss in the contralateral upper quarters of both eyes.

Right Temporal Lobe

Right Temple

The temporal lobe houses Meyer’s loop and lesions of the right loop leads to left upper quadrantic anopia. Traumatic injuries to the right temporal lobe are a common cause.

Cause

Middle Cerebral Artery (MCA) Infarct

Metal Brain with Clogged Middle Artery

Meyer’s loop runs from the lateral geniculate nucleus to the primary visual cortex. The middle cerebral artery supplies the LGN, and an infarct in this artery would lead to ischemia of the LGN. Ischemia of the right LGN can cause a lesion of the right pathway and consequently left upper quadrantic anopia.