

Binasal hemianopia due to bilateral internal carotid arteries dolichoectasia: A case report and literature review

ABSTRACT

Binasal hemianopia is rare. It is more commonly associated with ocular diseases than intracranial pathologies. Nevertheless, the proximity of internal carotid arteries (ICA) to the visual pathway may cause a variety of neurologic effects which may lead to visual loss. Although visual loss is uncommon, ICA aneurysm may compress the optic nerve causing visual field defect and reduced visual acuity. We report a 66-year-old male presented with asymptomatic binasal hemianopia detected during routine glaucoma screening. Computed tomography (CT) and magnetic resonance imaging (MRI) of the brain and orbit showed dolichoectasia in the cavernous segment of both ICA, which compressed the pre-chiasmatic optic nerve bilaterally. Humphrey's visual field test confirmed the diagnosis of binasal hemianopia respecting the vertical midline. This was the first reported case of binasal hemianopia without visual disturbances. This case highlights the importance of using CT and MRI as additional diagnostic tools to identify the true cause of binasal hemianopia (ICA dolichoectasia) in patients with glaucoma. A thorough assessment of any visual field defect helps to detect life-threatening intracranial pathologies effectively and is managed accordingly.