Optical coherence tomography in an optic tract lesion

Retinal nerve fiber layer changes

Figure 1 Spectral-domain OCT reveals a bow-tie atrophy pattern in the right eye and predominant superior and inferior nerve fiber layer loss in the left eye

Warning: Classification results valid for Caucasian eyes only

OCT = optical coherence tomography; OD = oculus dexter (right eye); OS = oculus sinister (left eye); RNFL = retinal nerve fiber layer.

Supplemental data
at Neurology.org

A 49-year-old woman, status post temporal lobe resection, reported a hemianopia. Examination revealed a right afferent pupillary defect, horizontal bow-tie atrophy OD (temporal and nasal), and temporal atrophy OS. Optical coherence tomography showed a bow-tie pattern OD and predominant superior and inferior nerve

Figure 2 Axial T2-weighted MRI

Atrophy of the left optic tract (arrow) and encephalomalacia of adjacent temporal lobe are seen.

fiber layer loss OS (figure 1; figure e-1 at Neurology.org). The pattern OD is due to the combination of papillomacular bundle and nasal RNFL loss. The pattern OS is due to nerve fiber layer loss temporal to the fovea and, coupled with papillomacular bundle loss, produces temporal pallor.¹ MRI confirmed left optic tract atrophy (figure 2). Optical coherence tomography may be sensitive for detecting localizing atrophic patterns.²

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