Teaching NeuroImages: Mind the gap! Postfixational blindness due to traumatic rupture of the optic chiasm

A 59-year-old woman visited the ophthalmologist for a routine examination. Ever since a severe head injury with frontal lobe damage at age 16 years, she had experienced intermittent diplopia and difficulties finding misplaced objects, but worked as a clerk throughout her life. Ocular motility was full with only slight exotropia, but perimetry revealed complete bitemporal hemianopia (figure 1, A and C). Bitemporal hemianopia is caused by disruption of crossing nerve fibers in the optic chiasm (figure 2), usually due to suprasellar masses, or rarely, following head trauma.1 Without corresponding retinal

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areas, patients are no longer able to align the 2 hemifields, lose stereopsis, and usually develop strabismus. Convergence on a near target induces postfixational blindness with a gap between the 2 nasal hemifields (figure 1, B and D), in which more distant objects disappear. This unusual visual field defect explains the patient’s complaint.

AUTHOR CONTRIBUTIONS
Konrad P. Weber designed the examination setup and wrote the manuscript. Klara Landau examined the patient, made the diagnosis, performed the perimetry, and contributed to the manuscript.

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REFERENCES
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