Teaching Video NeuroImage: Pupil-Sparing Infranuclear Third Nerve Palsy Pattern Caused by a Mesencephalic Stroke

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Neurology® 2021;97:e1166-e1167. doi:10.1212/WNL.0000000000012189

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A 27-year-old obese woman, a smoker, presented diplopia. She showed ptosis, impaired adduction, supraduction, and infraduction of the left eye with pupil-sparing (figure, A–C and video 1). Brain MRI showed restricted diffusion in the left midbrain, revealing ischemia (figure, D–F). Pupil-sparing third nerve palsy is usually associated with microvascular diabetic ischemia of central fibers in the cisternal segment, but is also related to partial fascicular lesions in brainstem stroke, ophthalmoplegic migraine, and, rarely, aneurysm. Although microvascular and brainstem ischemia have a better prognosis, regardless of pupillary involvement, the investigation is important for secondary stroke prevention, particularly in young patients, as in this case.1,2

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Go to Neurology.org/N for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

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Study Funding
The authors report no targeted funding.

Disclosure
The authors report no disclosures. Go to Neurology.org/N for full disclosures.

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References
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Neurology 2021;97:e1166-e1167 Published Online before print May 13, 2021
DOI 10.1212/WNL.0000000000012189

This information is current as of May 13, 2021

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