

# Teaching *NeuroImages*: Acute isolated oculomotor nerve palsy of microvascular origin

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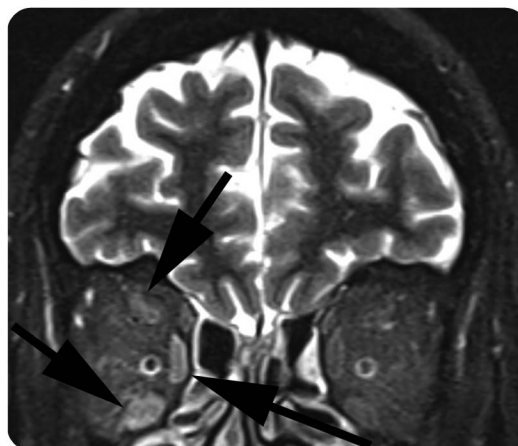
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**Figure** Muscle edema in isolated oculomotor nerve palsy of microvascular origin



Coronal MRI, 10 days after acute symptom onset, shows increased signal intensity on T2-weighted imaging and increased volume of the muscles innervated by the right oculomotor nerve (arrows), suggesting muscle edema in the early subacute phase of denervation, which could be a potential imaging correlate of the clinically based diagnosis of microvascular oculomotor nerve palsy.

A 73-year-old man presented with acute-onset, right-sided ptosis and pain above the right eye. His medical history noted hypertension and diabetes. On physical examination, an isolated right oculomotor palsy was noted with preserved pupillary function. An MRI scan revealed isolated swelling of superior, inferior, and medial rectus muscle at the right side (figure). No cause other than presumed microvascular oculomotor nerve ischemia was shown.<sup>1</sup> In patients aged 50 years or older, isolated ocular motor nerve palsies are most likely due to microvascular ischemia, but other etiologies such as aneurysm, brainstem stroke, and malignancy should be ruled out with MRI.<sup>1,2</sup>

## AUTHOR CONTRIBUTIONS

Writing the manuscript: Dr. Ido van den Wijngaard. Review and discussion of the manuscript: Dr. Rogier Hagenbeek, Dr. Korné Jellema, Dr. Lycklama à Nijeholt.

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## DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org](http://Neurology.org) for full disclosures.

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