

# Dilation lag in Horner syndrome can be measured with a diagnostic imaging system

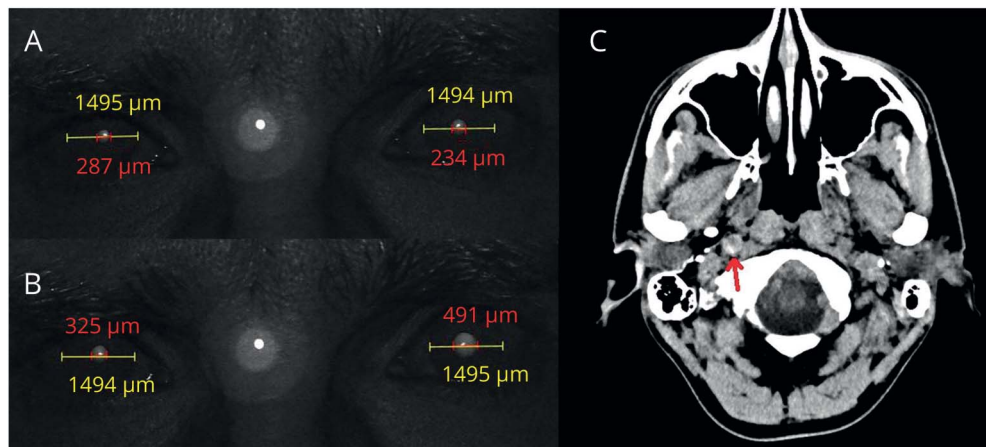
Francesco Pellegrini, MD, Gianluca Capello, MD, and Romeo Napoleone, MD

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**Correspondence**

Dr. Pellegrini  
francepellegrini@virgilio.it

**Figure** Frames caught by a 10-second video and pupils calculated through a caliper



In standard room light condition, the pupil diameters are almost the same (A), while a right dilation lag can be measured after turning the light off (B). Contrast brain CT scan shows internal carotid artery dissection (C, arrow).

A 45-year-old man presented to the emergency department complaining of retrobulbar discomfort. A neuro-ophthalmology consultation showed ptosis of the right upper eyelid. Both pupils were briskly reactive to light with no right afferent pupillary defect. A dilation lag was sought with a Spectralis machine (Heidelberg Engineering, Heidelberg, Germany). While the diameter of the pupils was almost the same (figure, A), in regular room light a dilation lag of the right pupil was detected when the light was turned off (figure, B). An urgent contrast brain CT scan confirmed a right internal carotid artery dissection (figure, C).

## Author contributions

Francesco Pellegrini: critical revision of the manuscript. Gianluca Capello: patient selection. Romeo Napoleone: study concept and design.

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## Disclosure

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

From the Neuro-Ophthalmology Service, Department of Ophthalmology, Conegliano Hospital, Italy.

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