Teaching Video NeurolImages: Marcus-Gunn pupil in tuberous sclerosis

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Figure 1 Funduscopy and optical coherence tomography (OCT)

Funduscopy (A) of the left eye and OCT (B, C) show a well-demarcated lesion with intralaminar cysts, located in the superior border of the left optic nerve and compatible with a retinal hamartoma.

A 22-year-old woman with tuberous sclerosis (TS) and an incomplete resection of a left-sided astrocytoma presented with a 4-year history of visual deterioration. Neurologic examination revealed a left relative afferent pupillary defect (RAPD) (video) with a pale left optic disc. Visual acuity was 20/100 bilaterally and a left-sided superior visual field loss was seen. Optical coherence tomography showed a left retinal hamartoma (figure 1). Contrast-enhanced brain MRI showed bilateral cortical and subcortical tubers (figure 2). Marcus-Gunn pupil or RAPD is a nonspecific feature denoting optic neuropathy.¹ TS ophthalmopathy includes retinal and iris hamartomas, choroid colobomas, and hypopigmented lesions on iris and ciliary body.²

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Video

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Figure 2 T2-weighted and fluid-attenuated inversion recovery (FLAIR) MRI

T2-weighted (A) and FLAIR (B, C) MRI show cortical and subcortical tubers (arrows).

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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.

Author contributions

Dr. Toro contributed to the composition of the manuscript and acquisition of the multimedia material. Dr. Patiño contributed to the composition of the manuscript and acquisition of the multimedia material.

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Disclosure

J. Toro is an Associate Editor for the *New England Journal of Medicine* *Journal Watch Neurology* and has served on this

board since 1999. He receives honoraria from the journal. Dr. Toro has been a board member of *Multiple Sclerosis and Related Disorders Journal* since 2012. He does not receive honoraria from this journal. J. Patiño reports no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.

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