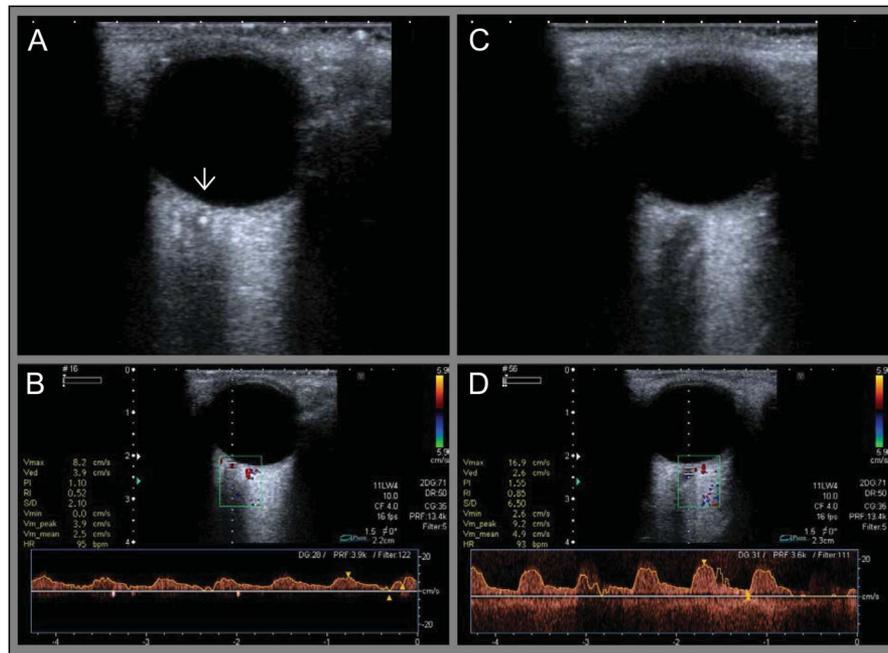


# Teaching NeuroImages: Sonographic “retrobulbar spot sign” in differentiating etiologies of sudden visual loss

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**Figure** Sonographic findings in a patient with embolic central retinal artery occlusion



(A) Hyperechogenic retrobulbar spot sign in the optic nerve head represents embolus in the distal central retinal artery (CRA) (arrow). (B) Triplex mode demonstrates reduced flow in the affected and partially recanalized CRA. (C, D) Corresponding examinations of the unaffected eye with regular findings.

A 61-year-old vascular patient presented with headache and subacute blindness in the left eye. Remaining American College of Rheumatology criteria were negative. Sonography of the temporal artery revealed no halo sign, but due to low sensitivity, vasculitis could not be excluded.<sup>1</sup> Transorbital examination revealed hyperechogenic retrobulbar spot sign (figure), which is highly specific for embolic occlusion of the central retinal artery.<sup>2</sup> Comprehensive diagnostic workup revealed paroxysmal atrial fibrillation as a putative cause for the embolus and no evidence for vasculitis. Thus, potentially harmful thrombogenic administration of steroids could be avoided. Transorbital sonography may help in cases of sudden visual loss of unclear etiology.

## AUTHOR CONTRIBUTIONS

Simon Faissner: drafting/revising the manuscript, analysis or interpretation of data, acquisition of data. Christine Grunwald: revising the

manuscript, analysis or interpretation of data. Saskia H. Meves: revising the manuscript, analysis or interpretation of data. Ralf Gold: revising the manuscript, analysis or interpretation of data. Christos Krogias: drafting/revising the manuscript, analysis or interpretation of data, study concept or design, study supervision. All authors have read and approved the content of the manuscript.

## STUDY FUNDING

No targeted funding reported.

## DISCLOSURE

Dr. Faissner received travel grants for scientific meetings from Biogen Idec. Dr. Grunwald and Dr. Meves report no disclosures relevant to the manuscript. Dr. Gold serves on scientific advisory boards for Teva Pharmaceutical Industries Ltd., Biogen Idec, Bayer Schering Pharma, and Novartis; has received speaker honoraria from Biogen Idec, Teva Pharmaceutical Industries Ltd., Bayer Schering Pharma, and Novartis; serves as editor for *Therapeutic Advances in Neurological Diseases* and on the editorial boards of *Experimental Neurology* and the *Journal of Neuroimmunology*; and receives research support from Teva Pharmaceutical Industries Ltd., Biogen Idec, Bayer Schering Pharma, Merck Serono, and Novartis. Dr. Krogias received travel grants for scientific meetings

from Bayer Vital and Bristol-Myers Squibb. Go to [Neurology.org](http://Neurology.org) for full disclosures.

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*Neurology* 2014;82:e153-e154

DOI 10.1212/WNL.0000000000000365

**This information is current as of April 28, 2014**

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