Teaching NeuroImages: Cerebral white matter involvement in a patient with Vogt-Koyanagi-Harada syndrome

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A 27-year-old man presented with decreased vision bilaterally. Ophthalmologic examination revealed panuveitis with bilateral serous retinal detachments (figure 1) characteristic of Vogt-Koyanagi-Harada (VKH) syndrome. Analysis of CSF revealed mild pleocytosis. No oligoclonal bands were detected. On MRI, there was bilateral abnormal thickening of the choroid with retinal detachment (figure 2, A and B), with hyperintense lesion on fluid-attenuated inversion recovery (FLAIR) image in the periventricular deep white matter (figure 2C). VKH syndrome is one of the causes of uveo-meningeal syndromes. Differential diagnosis of VKH syndrome includes Wegener granulomatosis, sarcoidosis, and Behçet disease.1 The main disorders showing association with hyperintense plaques on deep white matter FLAIR images are inflammatory, metabolic, vascular, degenerative, autoimmune, and demyelinating diseases. MRI is a helpful tool in diagnosing VKH syndrome; in addition to the typical bilateral ocular findings, scattered

Figure 1 Ophthalmologic image

Fundus photography (A, B) reveals exudative retinal detachment of the macula in both eyes on presentation. Fundus fluorescein angiography (C, D) shows subretinal fluorescein pooling. Optical coherence tomography displays exudative macular detachment in both eyes (E, F). It also shows reduction of subretinal fluid after corticosteroid therapy in both eyes (G, H).

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periventricular white matter lesions on FLAIR are also described.\textsuperscript{2}

**AUTHOR CONTRIBUTIONS**

Dr. Sadullah Keles: study concept and design and acquisition of data. Dr. Hayri Ogul: analysis and interpretation. Dr. Lokman Can Pinar: acquisition of data. Dr. Mecit Kantarci: critical revision of the manuscript for important intellectual content.

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**REFERENCES**


Axial T1-weighted MRI (A, B) demonstrates symmetric choroidal thickening with retinal detachment (arrows). Axial fluid-attenuated inversion recovery MRI shows hyperintense lesion in the periventricular left parietal deep white matter (C).

**Figure 2** Orbital and brain MRI
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