Posterior reversible encephalopathy syndrome

Robert Aria · Leszek Pisinski

Received: 8 September 2010 / Accepted: 21 October 2010 / Published online: 17 November 2010
© Springer-Verlag 2010

A 12-year-old boy with two tonic-clonic seizures coupled with pre-seizure loss of vision and blood pressure of 159/99 mmHg. Initial MRI shows diffuse cortical swelling and T2-W FLAIR signal hyperintensity within the cortical and subcortical white matter of the posterior parietal region (Fig. 1). Upon normalization of blood pressure 8 days later, repeat MRI demonstrates complete resolution of the white matter abnormality in the parietal lobes (Fig. 2).

Posterior reversible encephalopathy syndrome (PRES) is characterized by neurological symptoms including headache,

Fig. 1 Initial axial T2-W FLAIR MRI

Fig. 2 Repeat axial T2-W FLAIR MRI

visual disturbances and seizures. The pathophysiology of the disease is related to elevated blood pressures that exceed the autoregulatory capacity of brain vasculature [1]. The role of neuroimaging is to exclude other causes of the patient's symptomatology. Diagnosis of PRES is critical, as timely control of the patient's blood pressure can reverse both the clinical symptoms and the radiological findings [2].

References

1. Patel AB, Shaikh S (2006) Posterior reversible encephalopathy syndrome (PRES). *Indian Pediatr* 43:657–658
2. Lamy C, Oppenheim C, Meder JF et al (2004) Neuroimaging in posterior reversible encephalopathy syndrome. *J Neuroimaging* 14:89–94

R. Aria (✉) · L. Pisinski
Department of Radiology, Columbia University Medical Center,
The Affiliate at Harlem Hospital,
506 Lenox Ave.,
New York, NY 10037, USA
e-mail: ra2422@columbia.edu