Devil is in the detail, subtle signs of posterior reversible encephalopathy syndrome

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Clinical image description

A 33-year-old woman presented to the hospital with convulsive seizure and hypertensive crisis. As differential diagnosis cortical venous thrombosis, ischaemic or haemorrhagic stroke, space occupying lesion, Posterior Reversible Encephalopathy Syndrome (PRES) and epileptic syndrome were considered. Antiepileptic and antihypertensives drugs were used as initial clinical management.

Magnetic Resonance Imaging (MRI) findings in this case include hyperintensity of frontoparietal parasagittal margins and right central sulcus, signs of subarachnoid hemorrhage (A, asterisk, Figure) associated with bilateral and symmetrical increased signal in occipital and parietal region with posterior distribution (B, arrows, Figure) and adequate permeability of the intracranial vascular structures. The neuroimaging along with the clinical context guides the diagnosis.

PRES was first described in 1996 as a wide variety of neurological symptoms along with typical neuroimaging findings. Clinical features include headache, visual symptoms, seizures, focal neurological signs and altered consciousness that usually are reversible [1]. It’s a neurotoxic state that occurs as a result of cerebrovascular dysregulation due to a variety of triggers, primary and secondary causes of hypertension, cytotoxic substances, renal disease, infection and autoimmune disorders [2]. The syndrome is usually visualized in neuroimaging as vaso-genic edema predominantly in parieto-occipital region; it may be associated with laminar necrosis and bleeding [3]. In most cases, the prognosis is favorable and symptoms are reversible; although early detection is necessary.

Always consider PRES in the case of a hypertensive emergency with neurological symptoms. The fundamental treatment is the control of blood pressure and withdrawal of the cytotoxic drug, if any.
References

