

Another rare cause of encephalopathy

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DESCRIPTION

A 45-year-old woman with a medical history of Hashimoto's thyroiditis presented with a progressively worsening occipital headache for 24 h associated with blurry vision and vomiting. The headache had an intermittent pattern with no pain-free periods. She used to have mild intermittent occipital headaches for the last 6 months which fluctuated and responded to over the counter pain medications, but this time it was more severe and did not respond to the same medications. No other neurological deficits, relieving or aggravating factors were noted and neither was there anything significant in the family history. A physical exam including a funduscopy was unremarkable. Complete blood count, complete metabolic panel, thyroid function tests and the head CT were all unremarkable. Cerebrospinal fluid analysis was normal as well with normal opening pressure. She was admitted to the hospital for further work-up. During hospitalisation, she was noted to have elevated blood pressure prior to the headache attacks with blood pressure ranging 200–220 mm Hg systolic over 115–132 mm Hg diastolic. Each headaches episode lasts around 2 h regardless of antihypertensive and pain medications. Autoimmune workup, influenza antigen as well as 24 h urine catecholamines and metanephrine were all negative. T2-weighted MRI showed occipital white matter hyperintensity signals consistent with posterior reversible encephalopathy syndrome (PRES)

(figure 1). Scheduled sympathetic blocker was used and the patient started to have significant improvement over 3 days. MRI findings were resolved in 3 months.

PRES is a relatively new diagnosis of range symptomatology including headache, confusion, seizure or visual disturbance supported with characteristic CT or MRI finding.¹ Wide variety of precipitating factors was distributed between immunosuppressant agents in transplanted patients, autoimmune condition including systemic lupus erythromatosis, high chemotherapy doses, influenza infection, severe hypertension, hypercalcaemia and eclampsia.^{1–3} The pathophysiology mechanism theories suggest a disruption in brain perfusion with vasogenic white matter oedema of the parietal and occipital lobe, which is detected more specifically with T2-weighted MRI and diffusion studies disrupted sympathetic autoregulation between carotid and vertebrobasilar systems thought to result in impaired posterior cerebral blood flow, which was treated with sympathetic blocking agent and resulted in successful resolution of patient symptoms and radiological finding in 3 months.

Learning points

- ▶ Posterior reversible encephalopathy syndrome is a syndrome associated with headaches and elevated blood pressure.
- ▶ Workup of secondary causes of hypertension has to be done in such patient especially in the absence of MRI white matter findings.



Figure 1 T2-MRI showing white matter changes in the occipital area (arrows).

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