An Atypical Presentation of Posterior Reversible Leukoencephalopathy Syndrome

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Introduction :

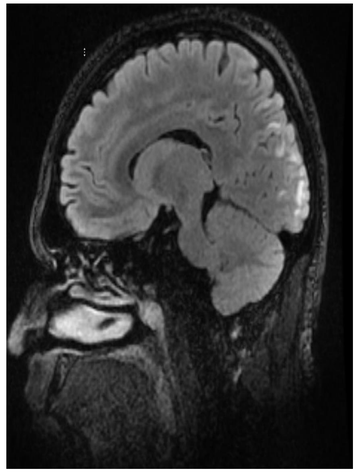
Posterior reversible leukoencephalopathy syndrome (PRES) typically presents with neurologic symptoms such as headache, confusion, seizures, and visual disturbances. PRES has been known to be associated with hypertension, renal disease, and immunosuppressive therapies.

The condition usually progresses over hours and persists for weeks or months before resolving. Here, we present a case of a patient developing PRES that resolved in less than 24 hours.

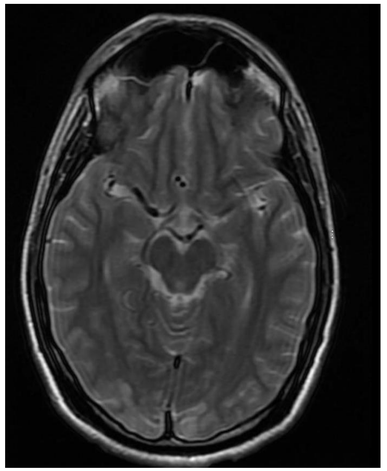
Case Description:

A 23-year-old male with no past medical history presented with bilateral flank pain, nausea, 2 episodes of non-billous, non-bloody vomiting, dysuria, and fever. His initial blood pressure was 118/66 mmHg and initial labs were significant for leukocytosis (13.6 K/uL), elevated BUN (21 mg/dL), creatinine (2 mg/dL), and FeNa 0.5%. The CT scan of abdomen showed bilateral pyelonephritis. He was treated with antibiotics and hydration, and the acute kidney insufficiency resolved.

On day four of admission, his blood pressure increased to 150/100 mmHg and the patient reported near complete vision loss. The MRI of the brain revealed subcortical edema in the left occipital and right parietal lobes, consistent with PRES. He was transferred to the MICU and given pulse doses of steroids. His peak blood pressure during the neurological symptoms was 168/117 mm Hg and normalized within a few hours. 24 hours later, he reported complete resolution of visual acuity. His condition was optimized and he was subsequently discharged.



a) Sagittal view



b) Axial T2 view

Magnetic resonance imaging of brain without contrast demonstrating (a) subcortical edema involving parietal and occipital lobes and (b) mostly subcortical edema involving the posterior left occipital as well as the right parietal and occipital lobes.

Discussion:

We are unaware of any reports of a patient developing symptoms consistent with PRES, confirmed with typical MRI findings, and resolving so rapidly. Typically, patients present with neurologic symptoms of PRES, while our patient developed the neurologic symptoms during the hospitalization, which allows us to be certain of the duration. PRES has been associated with several conditions, including hypertension, acute kidney insufficiency, and chronic kidney disease.

The rapid resolution in our case may be due to early intervention with blood pressure control and steroids. The quick resolution of symptoms suggests that early intervention plays a major role in achieving excellent prognosis.

References:

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