

Euro Nephrology 2019: Clinical profile and outcome of posterior reversible encephalopathy syndrome in patients with renal failure

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Introduction:

Posterior reversible encephalopathy syndrome (PRES) is a facility radiologic element described by migraine, changed degree of cognizance, seizures, visual unsettling influences, and reversible vasogenic edema. Radiologically, normally there is vasogenic edema inside the occipital and parietal locales (~95% of cases), maybe identifying with the back cerebral corridor gracefully. The edema is typically even. Despite the fact that it is named back, PRES can be found in a nonposterior districts, chiefly in watershed zones, including inside the frontal, mediocre worldly, cerebellar and brainstem locales. Both cortical and subcortical areas are influenced. PRES is related with intense hypertension and frequently confounds the administration of intense kidney injury (AKI) and ceaseless kidney malady (CKD). There are not many case reports of PRES in hemodialysis patients, and this substance has not been concentrated deliberately. The goal of this investigation is to describe the variables inclining to the improvement of PRES in patients on maintenance hemodialysis (MHD). Post reversible encephalopathy condition (PRES) is a clinico-radiologic element described by cerebral pain, adjusted degree of cognizance, seizures, visual unsettling influences, and reversible vasogenic subcortical edema. Hypertension and renal disappointment are notable chief hazard factors for the improvement of PRES. Nonetheless, chance elements and result of PRES has not been concentrated in patients on maintenance hemodialysis (MHD).

Background:

Posterior reversible encephalopathy syndrome (PRES) is a clinico-radiologic entity characterized by headache, altered level of consciousness, seizures, visual disturbances, and reversible vasogenic subcortical edema on MRI scan, predominantly in the posterior white matter. The objective of the present study is to characterize the clinical features, neuro-imaging findings, triggering factors and outcome of PRES in patients with renal failure.

Methods:

We performed a retrospective study including all patients with renal failure who were diagnosed with PRES in our department of nephrology between January 2016 and June 2019.

Results:

A total of 10 patients were included for the final analysis. Mean age at PRES onset was $29,5 \pm 8,16$ years. Eight patients were women. Five patients (50%) had a history of chronic

hypertension. Kidney failure was chronic in 9 (90%) cases and secondary to systemic lupus in 5 cases, MCD in 2 cases, diabetes in one case and unknown etiology in 2 cases. Acute severe headache and vomiting were the most common presenting symptoms, as seen in all cases, followed by seizure in 8 cases, blurred vision in 7 patients and alteration of consciousness in 6 cases. Nine patients (90%) had uncontrolled hypertension. Five patients had infection at the time of PRES episodes. Three patients had urinary tract infection, 1 had pneumonia and 1 patient was recently diagnosed with pulmonary tuberculosis. Three patients received pulses of cyclophosphamide with glucocorticoids. Antihypertensives and antiepileptics were the mainstay of treatment along with supportive care. During the observation period, 5 patients recovered completely, 2 patients developed recurrence of PRES and 3 patients died.

Conclusion:

Given the good prognosis of PRES in patients with early supportive treatment, prompt recognition is crucial to institute appropriate management and prevent permanent neurological deficits.

Discussion:

As far as we could possibly know, the current examination is the biggest investigation that analyzed the clinical profile of PRES in dialysis populace. The entirety of our patients had safe hypertension since the commencement of MHD. In our inside, 55% of dialysis patients had uncontrolled pulse and mean BP in our dialysis populace was 163/101 mmHg and not every one of these patients created PRES. In this way, in spite of the fact that the intense flood in circulatory strain hastens PRES, all the scenes of hypertensive crises were not related with the advancement of PRES and extra trigger out of sight of uncontrolled hypertension may accelerate PRES and should be investigated unequivocally. Scenes of PRES created in an early time of MHD, and this could be because of unsettling influences in volume status of a person. Repeat was noted in scarcely any cases (4 of 18), yet it was not related with any drawn out dismalness or mortality.