Case Report

Posterior Reversible Encephalopathy Syndrome in Early Postpartum Women: A Case Report

ABSTRACT

Posterior reversible encephalopathy syndrome (PRES) is a rare acute neurologic condition, characterized by acute neurological symptoms. The radiological findings are predominantly seen in the posterior cerebral hemispheres and are reversible with appropriate management.

We are reporting a case of a 21-year-old woman (primigravida), who presented with loss of vision, head ache and vomiting on 2nd day of post-caesarean section. Caesarean section was done due to fetal distress. On examination, patient appeared drowsy but arousable, had a blood pressure of 140/114 mmHg, rest of the examination was unremarkable. CT and MRI brain was performed to rule out cerebral venous sinus thrombosis and cortical blindness; imaging and clinical findings were suggestive of posterior reversible encephalopathy syndrome (PRES). She was treated successfully with antihypertensives and showed dramatic improvement.

CASE REPORT

A 21-year-old primigravida with gestation age of 33 weeks 4 days, (according to her last menstrual period) whose first and second trimester gestation was uneventful with no history of hypertension and epilepsy before and during pregnancy. She developed sudden onset of headache, giddiness, vomiting and convulsions. She was diagnosed antepartum eclampsia and treated with antihypertensive (calcium channel blocker), and referred to our institution for further management. On admission, general physical and systemic examination was normal except her blood pressure measuring 142/94 mm Hg. She was treated with Magnesium sulphate according to Pritchard’s regimen and antihypertensives (calcium channel blocker). Next day patient was taken into caesarean section for fetal distress. Caesarean section was uneventful, done under spinal anesthesia, delivered a live baby of 2.3 kgs.

On 2nd day of post-caesarean section she developed loss of vision, head ache and vomiting. On examination, patient appeared drowsy but arousable, had a blood pressure of 140/114 mmHg. Rest of the general physical examination were unremarkable. CNS examination revealed loss of vision in both eyes with regard to perception of hand movements. Pupillary reactions and results of a fundoscopic examination were normal and Plantar reflex was flexor. Abdominal, cardiovascular, and respiratory system examinations were unremarkable. Biochemical parameters were normal expect urine examination showed 1+ proteinuria.

CT and MRI brain was performed to rule out cerebral venous sinus thrombosis and cortical blindness. Imaging and clinical findings were suggestive of posterior reversible encephalopathy syndrome (PRES). She was treated successfully with antihypertensives (calcium channel blocker) and showed dramatic improvement, her vision improved to 6/6 after two days following commencement of the treatment. She was followed up and MRI at four weeks after initiation of treatment showed disappearance of the previous imaging findings.

Keywords: Posterior reversible encephalopathy syndrome, Postpartum, Preeclampsia, Vasogenic oedema
helpful in distinguishing vasogenic from cytotoxic oedema, which (DWI) and apparent diffusion coefficient (ADC) map images are vasogenic oedema. Supplemental diffusion weighted imaging the posterior regions, which is caused by subcortical white matter signal intensity on T2-weighted and FLAIR images, predominantly in autoimmune diseases, and sepsis [4]. PRES is characterized by high with PRES, including hypertensive encephalopathy, preeclampsia/eclampsia, autoimmune diseases, and sepsis [4]. Many conditions exist that are commonly associated within the frontal, inferior temporal, cerebellar and brainstem regions [3]. Many conditions exist that are commonly associated with PRES, including hypertensive encephalopathy, preeclampsia/eclampsia, immunosuppressive drugs, renal disease, fluid overload, autoimmune diseases, and sepsis [4]. PRES brain is characterized by high signal intensity on T2-weighted and FLAIR images, predominantly in the posterior regions, which is caused by subcortical white matter vasogenic oedema. Supplemental diffusion weighted imaging (DWI) and apparent diffusion coefficient (ADC) map images are helpful in distinguishing vasogenic from cytotoxic oedema, which represents foci of irreversible ischemia [3]. The parieto-occipital regions with sparing of the calcarine and paramedian occipital lobe structures help in differentiating it from bilateral posterior cerebral artery infarcts. Neuroradiographic abnormalities of PRES are often apparent on computed tomography (CT) scans but are best depicted by magnetic resonance imaging (MRI) [1,5]. The clinical and neuroimaging findings tend to be reversible once the underlying cause of PRES is identified and treated. Irreversible brain damage can sometimes occur due to late recognition or incorrect treatment [6]. Reversibility of the clinical and radiological findings may take between 5 days to 17 months, although there have been reports where normal function is not fully regained [7].

**CONCLUSION**

PRES is an interesting neuro-radiological entity. This condition is important to recognize and to characterize the imaging findings by radiologists, is the key to diagnosing this syndrome. Neuroradiologic imaging is a useful diagnostic tool in the setting of pre-eclampsia and eclampsia to diagnose the disease. Early neuroimaging and more aggressive control of blood pressure may have a role in the management of these patients. Delay in the diagnosis and treatment may result in permanent damage to affected part of brain tissues. The radiologist must be familiar with the imaging abnormalities of this life-threatening, but treatable condition to prevent morbidity and mortality in pregnancy and postpartum.

**REFERENCES**


