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A RARE CASE OF POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME

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KEYWORDS :

INTRODUCTION

Posterior Reversible Encephalopathy Syndrome also known as Reversible posterior leukoencephalopathy. Incidence of PRES is 4-7% in all pregnancies. PRES presents with rapid onset of symptoms including headache, seizures, altered consciousness, and visual disturbances. It is often, but by no means always associated with acute hypertension. If promptly recognized and treated, the clinical syndrome usually resolves within a week and the changes seen in magnetic resonance imaging (MRI) resolve over days to weeks (1,2,3).

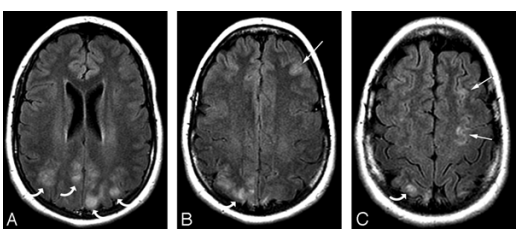
Chronic kidney disease and acute kidney injury are both commonly present in patients with PRES, and PRES is strongly associated with conditions that co-exist in patients with renal disease, such as hypertension, vascular and autoimmune diseases, exposure to immunosuppressive drugs, and organ transplantation. It is therefore important to consider PRES in the differential diagnosis of patients with renal disease and rapidly progressive neurologic symptoms(4). Posterior reversible encephalopathy syndrome is an increasingly recognized disorder, with a wide clinical spectrum of both symptoms and triggers, and yet it remains poorly understood.

CASE REPORT

We report a case of 21 year old Primigravida with 40 weeks gestational age with hypothyroidism came to Katuri medical college and hospita, Guntur for safe confinement of pregnancy. She got admitted and all necessary investigations was done. she underwent primary elective LSCS and delivered a single, live, male child of weight 3.75 kgs as vertex with APGAR Score 8-10 at 1 and 5 mins. Intra operative findings are: 1. LUS well formed, 2. liquor clear and adequate, 3.placenta fundal and posterior, 4. bilateral fallopian tubes and ovaries are normal, 5.no extension of angles. No immediate postpartum haemorrhage.

On 7th post-operative day patient complained of headache, blurred vision and vomitings. The BP recorded was 190/100 mmHg, then within 15 mins she had two episodes of tonic clonic seizures, after which patient was shifted to ICU and managed conservatively for 5 days (Levipil, Mannitol, Antibiotics) .On 11th post op day, suture removal was done, wound was healthy. Patient was then shifted to postnatal ward, thereafter she was stable throughout the stay in the hospital and discharged with stable vitals.

MR imaging (Figures A, B, C) demonstrates patchy vasogenic edema in the parietal region (*curved arrows*) bilaterally along with linear involvement along the superior frontal sulcus on the left (*arrows*) consistent with the findings in eclampsia. Involvement in the occipital lobe was not present, and the temporal lobes and cerebellum were normal bilaterally. Absence of occipital lobe involvement placed this in the *partial and asymmetric expression group* consistent with *partial expression* of the PRES pattern.



DISCUSSION

Posterior reversible encephalopathy syndrome (PRES) refers to a disorder of reversible subcortical vasogenic edema in the presence of acute to subacute neurological symptoms. Although exact pathophysiology remains unclear, endothelial dysfunction is key, with hypertension being the most common precipitating factor. Other triggers include renal failure, sepsis, autoimmune disorders, and use of immunosuppressive or cytotoxic drugs such as cyclosporine and tacrolimus.

Symptoms develop within a few hours up to several days and include encephalopathy (ranging from mild confusion, stupor, or rarely to coma) and seizures, either generalized tonic-clonic or focal (status epilepticus is uncommon). Headache is usually dull, diffuse, and gradual in onset. Visual disturbances namely cortical blindness, homonymous anopias, and neglect can also occur.

Neuroimaging findings in PRES include bilateral vasogenic edema presenting in occipital and parietal lobes. Cerebellar and brainstem involment is also common and in more severe cases the anterior cortex can be affected. The calcarine and paramedian areas of occipital lobe are usually spared in PRES and may help distinguished from posterior cerebral infarction.

Treatment is targeted to the precipitating cause, with use of antihypertensive agents or withdrawal of offending drugs. The management of seizures includes short-term treatment with antiepileptic drugs, that can be discontinued when the acute phase of PRES has resolved. Clinical improvement is typically seen within days to weeks, but in most severe forms the symptoms are not fully reversible.(5,6).

The association of PRES with toxemia of pregnancy is well established. Preeclampsia develops in approximately 5% of pregnancies and eclampsia, in approximately 1 in 3000 births with current management. Eclampsia develops before gestation in 50% of patients, intrapartum in 25%, and within 48 hours of delivery in 25%. Although most women are hypertensive at toxicity, blood pressure is reported as normal or only minimally elevated in 23% of patients(7,8). The placenta is thought to be the primary cause of toxemia, with placenta removal and fetal delivery considered curative.

"Delayed Eclampsia" (PRES within several weeks after delivery) can occur, and the clinical presentation is often confusing. Blood pressure may be normal or mildly elevated, severe headache is common, and conventional angiography is often performed to exclude intracranial aneurysm. In a recently reported case, delayed eclampsia appeared to have been associated with retained placental fragments. PRES has also been reported 3 weeks following resection and chemotherapy for hydatidiform mole.

REFERENCES

1. McKinney AM, Short J, Truwit CL, McKinney ZJ, Kozak OS, SantaCruz KS, et al. Posterior reversible encephalopathy syndrome: incidence of atypical regions of involvement and imaging findings. AJR Am J Roentgenol 2007; 189:904–12 [PubMed] [Google Scholar]
2. Roth C, Ferbert A. The posterior reversible encephalopathy syndrome: what's certain, what's new? Pract Neurol 2011; 11:136–44 [PubMed] [Google Scholar]
3. Hinchey J, Chaves C, Appignani B, Breen J, Pao L, Wang A, et al. A reversible posterior leukoencephalopathy syndrome. N Engl J Med 1996; 334:494–500 [PubMed] [Google Scholar]
4. Fugate JE, Claassen DO, Cloft HJ, Kallmes DF, Kozak OS, Rabinstein AA. Posterior reversible encephalopathy syndrome: associated clinical and radiologic findings. Mayo Clin Proc 2010; 85:427–32[PMC free article] [PubMed] [Google Scholar]
5. Hypertensive disorders of pregnancy. In: Cunningham FG, Gant NF, Leveno KJ, eds. Williams Obstetrics. 21st ed. New York: McGraw Hill;2001 :567–618
6. Dekker GA, Sibai BM. Etiology and pathogenesis of preeclampsia: current concepts. Am J Obstet Gynecol 1998;179:1359–75
7. Fischer M, Schumutzhard E. Posterior reversible encephalopathy syndrome. J Neurol 2017; 264: 1432-1459.
8. Hinchey J, Chaves C, Appignani B, et al. A reversible posterior leukoencephalopathy syndrome. N Engl J Med 1996; 334: 494 – 500.