

Rare case report of PRES in Eclampsia

¹Dr. Sahil Mittal, ¹Dr. Aakriti Kumar, ¹Dr. Garima Sharma

¹MD Medicine, Junior Resident 3, Department of Medicine, Rama Medical college and Research Centre, Hapur, Uttar Pradesh, India.

ABSTRACT

Eclampsia is one of the most common entity in pregnant women all across the globe including India. Cases with posterior reversible encephalopathy syndrome in this condition has been rarely reported in literature. Its clinical manifestations is similar to eclampsia with predominant weakness and altered consciousness. In addition, there is a need to look for neurological abnormalities. Treatment of this condition is symptomatic after early recognition and physicians should be vigilant and aware of this condition.

Key words- PRES; Eclampsia; Hypertension

INTRODUCTION

Posterior reversible encephalopathy syndrome (PRES) is a clinico-radiological entity described by Hinchey *et al* in late 90's, characterised by variable associations of seizure activity, altered level of consciousness ranging from confusion to coma, headaches, visual abnormalities, nausea or vomiting and focal neurological signs.^[1] Common triggering factors of PRES include blood pressure fluctuations, preeclampsia/eclampsia, renal failure, cytotoxic agents, and autoimmune conditions.^[2,3] It's recognition has improved markedly over the last few decades with increased availability of magnetic resonance imaging (MRI).^[4] Patients with severe manifestation of PRES may get admitted to the Intensive Care Unit (ICU) due to coma or status epilepticus.^[5] Moreover, permanent neurological impairment or death occurs in a minority of patients. We report a case of 29-year-old female who presented in our medical emergency department with GTCS. Although current incidence of this PRES is rare but is likely to increase diagnosis with more wide spread availability of MRI. The clinicians especially those working in the rural and semi-urban regions need to be aware of clinical manifestations and management of this entity. The objective of this case report is to provide clinicians with guidance for diagnosing and treating patients with PRES in pregnancy.

CASE REPORT

A 29-year-old primigravida with known history of hypertensive disease of pregnancy presented in emergency room with the chief complaints of generalized tonic clonic seizures following acute onset of headache. On arrival patient was unconscious responding to painful stimulus with E₂V₁M₃, pedal edema and blood pressure of 190/110 mmHg with right sided hemiparesis

having power of 3/5. On auscultation bilateral basal crepts present. Initial investigations revealed Rbs-101mg/dl, Hb – 8.9, platelets –2.12 lac, WBC- 10200/cumn, serum creatinine - 1.5, Serum electrolytes i.e. Na⁺/k⁺ 137/3.9, liver function test wnl, Elevated D-dimer levels and urine analysis with albumin of 3+. Patient was intubated in ER and shifted to operation theater on mechanical ventilatory support for emergency casearian section. General anesthesia with rapid sequence induction given. Intra operative blood pressure was consistently high (>160/110mmhg), managed with NTG infusion, rest surgery was uneventful. Baby with the birth weight of 2.63kg with APGAR score of 7,8,8 at 2,5,10 minutes shifted to neonatal intensive care unit for care. She was managed in ICU with magnesium sulfate therapy, labetalol, furosemide and mannitol along with central venous pressure monitoring. Patient was managed by physician, obstetrician and critical care team. Fundoscopy revealed bilateral papilledema. MRI brain was done which revealed small lacunar hemorrhagic infarct in left posterior parietal region. She weaned off from ventilator after 5 days after proper management, maintained on air saturation of 100% with significant neurological recovery and shifted to ward. Rest of her hospital stay was uneventful until her discharge. Follow up was done after 4 weeks with MRI scan which was normal.

DISCUSSION

The incidence of PRES is unknown and has been reported in young to middle-aged adults with female predominance. Regardless of the underlying causes, the main abnormality is cerebral vasogenic edema due to rapid rise in blood pressures eventually overcome the autoregulatory capabilities of the cerebral vasculature causing vascular leakage and resultant vasogenic edema.^[6] Seizures are seen in 92% of cases^[7] with status epilepticus as one of the leading causes of manifestation as seen in our case report. In severe cases, aggressive supportive care in the intensive care unit (ICU) is required. Despite a common myth of its benign course and reversibility in terms of both clinically and radiological aspects, permanent brain damage, severe functional impairments, and mortality have been reported.^[8] Radiological imaging is very important in the diagnosis of this entity.

CONCLUSION

An PRES is not commonly occurring concomitantly in pregnancy. So clinicians should be vigilant regarding diagnosing it, especially in cases of Eclampsia. Also, there is no specific treatment available for this entity so early recognition and resolution of the underlying cause is the keystone of management. Increased incidence of comorbidities in pregnancy demands increases awareness to introduction of exclusive obstetric ICUs. Publication of case reports and case series may help in increasing awareness of this rare entity.

COMPETING OF INTEREST

The authors declare that they have no conflict of interests.

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