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Posterior Reversible Encephalopathy Syndrome Postpartum – A Case Report

Dr.M.Kaavya[1]Dr.K.Saraswathi[2]

[1] *Senior Resident of OBG department, SreeBalaji Medical College & Hospital, Bharath University, Chennai-India.*

[2] *HOD of OBG department, SreeBalaji Medical College & Hospital, Bharath University, Chennai – India*
Corresponding Author:Dr.M.Kaavya

Abstract*: Posterior reversible encephalopathy syndrome (PRES) was first described in 1996 by Hinchey et al[1] as a clinical syndrome characterized by confusion or decreased level of consciousness, lethargy, nausea, headache, visual changes, and seizures. The pathogenesis of PRES is still unclear.[2] The obstetric causes of PRES include preeclampsia, eclampsia and HELLP syndrome.[3] Sepsis, use of immunosuppressive drugs, history of renal and autoimmune diseases, HIV syndrome, acute intermittent porphyria, organ transplantation and hypertensive encephalopathy are among the other causes of PRES.[4] Early diagnosis and proper treatment results in complete recovery without any permanent neurological sequelae and may decrease mortality and morbidity.[1]We report a case of a 21 year old P1L1 patient who is postoperative day six of emergency LSCS presented with generalized clonic tonic seizures and high blood pressure . A number of clinical scenarios can present with similar symptomatology, which poses a great challenge. Here we report a case which on evaluation turned out as posterior reversible encephalopathy syndrome (PRES) in the postpartum period.*

Keywords: *Posterior Reversible Encephalopathy Syndrome (PRES) , MRI Brain ,postpartum,post operative day (POD)*

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I. Introduction

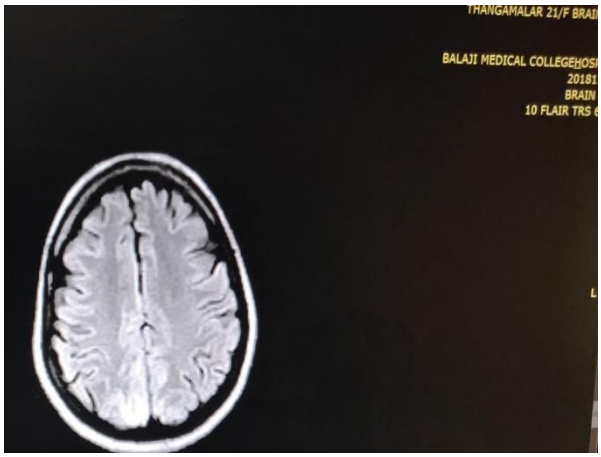
Posterior Reversible Encephalopathy Syndrome (PRES) is commonly reported in association with preeclampsia and eclampsia.Typical signs of PRES are best detected by T2- weighted and fluid-attenuated inversion recovery (FLAIR) MRI, which is the golden standard. CT scans only reveal 50% of the lesions[7]Typical findings are symmetric edema involving the white matter of the posterior regions of the cerebral hemispheres. White matter lesions in the occipital lobes, posterior parietal lobes, and posterior temporal lobes, in that order, are classic findings. Lesions in the frontal lobes, cerebellum, and pons may be seen, but seem to be minor and only visible in addition to injuries in the other brain structures .[1,3-6] . With treatment, resolution of findings occurs within days to weeks.

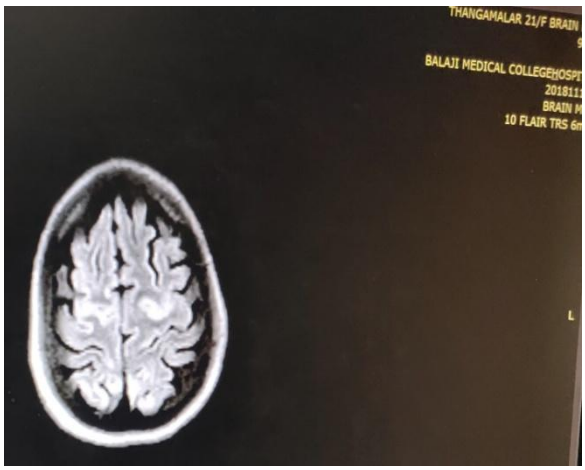
II. Case Report

A 21year old P1L1 patient who is postoperative day six of emergency LSCS presented to the emergency room with history of convulsions twoepisodes . Patient had H/O headache followed by which she had first episode of generalized clonic tonic seizure at home lasting for 1 min ,H/O LOC not known but patient did not respond to commands. Patient had rolling over of eye balls.H/O deviation of mouth and drooling of saliva,there was no tongue bite.,H/O vomiting 2 episodes since morning, Patient was taken to a nearby private hospital , there Patient had second episode of seizure lasting for 1-2 mins. Patients's BP was 190/110 mm Hg, Heart rate was 112 beats per minute, And then patient was referred to our institution for further management. Patient was given Inj .Fosolin 1.2gIV stat ,On Examination Patient was drowsy ,Afebrile , No neck rigidity, Both pupils were normal & reacting to light,BP-150/110 mmHg, PR-104/min,Spo2- 98% in room air ,Capillary blood Glucose- 140 mg/dl ,Cardiovascular and Respiratory system was normal,Per Abdomen – Soft, not tender, Uterus involutingwell,woundheathy,Per Speculum – Cervix and Vagina healthy,Lochiahealthy,PerVaginum-cervix downwards, Uterus anteverted 8 weeks size,mobile,non-tender,fornices free.Laboratory investigations revealed normal urine routine, Complete Blood Count, Liver Function Test, Renal Function Test, Serum electrolytes and coagulation profile. Patient was treated with general supportive measures andInj.Mgso4 4mgslow IV given ,Following Mgso4 11gm/hrasmaintenance dose.Patient was restless, not oriented, irritable, her BP was 150/110mm Hg and HR was 100/min. Inj.Fosolin 150mg IV TDS,Inj.Levipil500mg IV BD started, Neurologist opinion obtained, advised EEG & MRI

MRI revealed- multiple bilateral hyper intensity T2/FLAIR involving the cortical,subcortical lesion of occipital,parietal,temporal,frontal,cerebellarregionsuggesting of **POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME**.Neurologist review obtained with MRI report,advised to stop Inj.Mgso4,and Inj.Fosolin and started on Inj.Nootropil 1gm IV TDS,Inj.Levipil 500mg IV BD,for 3 days until postoperative day 9. The next day on POD 10th,patient was changed to oral forms of antiepileptics as Tab. Levipill 500mg BD,Tab.Nootrophil 800mg TDS,along with Antihypertensives of Tab.Amlong 5mg BD and Tab.Telma – H OD ,Patient found haemodynamically stable,BP-110/70mm Hg,HR-94 per minutes on 11th post operative day and hence patient was discharged .

MRI Pictures Suggesting Of Posterior Reversible Encephalopathy Syndrome:





III. Discussion

Posterior reversible encephalopathy syndrome is seen, not only in relation to preeclampsia, but in a variety of diseases/conditions. This condition has been designated by a variety of names (reversible posterior leukoencephalopathy syndrome, reversible posterior cerebral edema syndrome, and reversible occipital parietal encephalopathy). THE PATHOPHYSIOLOGY OF PRES REMAINS CONTROVERSIAL, Triggers and associated conditions include Acute hypertension, Acute kidney injury, Eclampsia Sepsis , multi-organ failure, Autoimmune disease, Immunosuppressive drugs (tacrolimus, cyclosporine, chemotherapy)drugs like cocaine and Organ transplantation.The typical features of PRES consist of consciousness impairment(13-90%),[11,12] seizure activity(92%), [10]headaches, visual abnormalities(26-67%)[11] in which cortical blindness accounts for 8-12%, nausea/vomiting(26-53%), permanent neurological abnormalities is rare(7%), recurrence rate-6%

IV. Conclusion

PRES syndrome is an uncommonly encountered condition in parturients and carries a significant morbidity and mortality if it goes unrecognized. It's a potentially reversible condition and requires supportive care till it resolves. It is necessary to have a high index of suspicion in susceptible patients in order to ensure a positive outcome.

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