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Research Article

**POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME
IN A WOMAN WITH ECLAMPTIC SEIZURES**¹Dr.Sumaya Pathan, ²Dr.Sheeba Hussain, ³Dr.Shahina Ishtiaq, ⁴Dr.Ayesha Khurshid,
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Abstract:

Post reversible encephalopathy is a reversible neurological disorder characterized by headache, visual disturbance, seizures and impaired consciousness. There are multiple causes of PRES syndrome, leading to vasogenic cerebral oedema of occipital & parietal lobe. We are reporting a 19-year-old primigravida 37weeks pregnant came with headache, blurring of vision and eclamptic fits. Brain imaging findings helped us to diagnose the post reversible encephalopathy syndrome.

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INTRODUCTION:

Posterior reversible encephalopathy syndrome [PRES] is a rare neurological condition and for the first time was described in 1996 by Hinchey [1,2,3,4,5,]. 40% of the population diagnosed with PRES require intensive care monitoring and treatment [1]. This condition is characterized by the sign and symptoms like headache, cortical blindness, blurred vision, vomiting, seizures and confusion [2,3]. PRES associated with late postpartum eclampsia is very rare [3]. A recent case has been reported that postpartum hemorrhage without increase in blood pressure can cause PRES [4]. Its association is common with the acute hypertension but not always presents with it [5].

In this case report we present an eclamptic pregnant women who developed PRES after the cesarean section.

CASE REPORT:

We are reporting the case of A 19 year old primigravida known case of gestational hypertension on antihypertensive medications booked case presented in gynae ER of Ziauddin hospital Karachi on 24-10-18 with history 37+1 week and 3 fits at home. She taken to local clinic where she was given initial treatment and was referred to our hospital.

At the time of admission, She was conscious but disoriented, her B.p was 150\100 mmHg, pulse 115 b/m and she was febrile with 102F temperature. She was resuscitated and initial management with antihypertensive and anticonvulsant medications started. Meanwhile she developed another episode of fit at 11:15 am (blood pressure 170\110 mmHg). She was immediately shifted to intensive care unit. Preparation done for her emergency cesarean section and she was shifted to OT, alive male baby delivered (2.5kg wt) with good apgar score.

Post-operatively shifted back to intensive care unit & had severe hypertension (blood pressure 170\85) and was treated with Inj: antihypertensive, Inj: anticonvulsant & Inj: antibiotics medications.

On her 1st post-operative day in intensive care unit her vitals were in normal range but patient complained of headache and blurred vision. On general physical examination pt was stable, alert but agitated and squint & drooping was noted in her left eye. Urgent consultation was sought from neurology and ophthalmology. Fundoscopy revealed that she had mild disc edema in her left eye. Neurologist advised for MRI. MRI was done and report revealed POSTERIOR REVERSIBLE ENCAPHALOPATHY SYNDROME (PRES).

MRI REPORT:

DR. ZIAUDDIN HOSPITAL
ESTD 1957

Medical Record No: 1301068
Bill / IPR No: 100263321018

Name: SAIRA
W/O: ASHRAF
Age: 19 Years
Sex: Female
Pvt/Comp: PRIVATE
Date: 26/10/2018
Dept No:
Refno:
Bed No:

Phy Name: Dr. Same Akhtar
Type: OPD
Study: MRI OF BRAIN WITH CONTRAST AND MRV FULL

MRI OF BRAIN WITH CONTRAST AND MRV FULL STUDY

HISTORY:
2nd post of day of C-section.
K/C of eclampsia.
Tonic clonic seizures following C-section.

TECHNIQUE:
Multiplanar multisequential images were obtained according to departmental protocol.

FINDINGS:
There is evidence of bilateral symmetrical abnormal signals appearing hyperintense on T2W, FLAIR images and ADC map are seen in cortical location in bilateral occipital region. These appears hypointense on T1W images without definite post contrast enhancement. No definite abnormal signals identified on diffusion weighted image. Appearance in keeping with clinical history are highly suggestive of posterior reversible encephalopathy syndrome (PRES).
No evidence of intracranial mass or bleed.
Normal ventricular system and basal cisterns.
Normal signal flow voids of vessels noted.
Normal basal ganglia, brain stem and cerebellum.
Normal pituitary gland and para-sellar structures.
Eye globes, optic nerves and vestibulo cochlear complexes are within normal limits bilaterally.
On MRV image superior sagittal sinus appear normal in its entire length without any thrombus or filling defect.
Bilateral transverse sinus, sigmoid sinus and straight sinus appear normal.
Visualized portions of IJV appears normal on either side.

IMPRESSION:
There is evidence of bilateral symmetrical abnormal signals appearing hyperintense on T2W, FLAIR images and ADC map are seen in cortical location in bilateral occipital region. These appears hypointense on T1W images without definite post contrast enhancement. No definite abnormal signals identified on diffusion weighted image. Appearance in keeping with clinical history are highly suggestive of posterior reversible encephalopathy syndrome (PRES).
No evidence of intracranial mass or bleed.
No evidence of venous sinus thrombosis or venous infarction.
MRV appears normal.

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PHYSICIAN - ICH/IAEP

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For Report

NORTH HAZARBAD CAMPUS
CLIFTON CAMPUS
HAZARBAD CAMPUS
HEMARI CAMPUS



On her 2nd post-operative day in gynae ward her B.P and was shifted to post-operative gynae ward.

On 3rd post operative day in gynae ward she had moderate hypertension (blood pressure 150/100). Pt was conscious, alert and well oriented. Blurring of vision was improved.

On 4th post operative day in gynae ward, she was vitally stable, her symptoms improved and her general condition was stable throughout the day.

On 5th pod in gynae ward, there was complete recovery from blurring of vision and other symptoms so she was discharged without any recurrent episodes of symptoms afterwards. Oral antibiotics, multi vitamins and anti hypertensive was advised on discharge and was asked to follow up after 1 week. On follow –up visit she was stable with normal blood pressure and vision.

DISCUSSION:

Posterior reversible encephalopathy [PRES] is a reversible neurological condition characterized by white matter edema effecting the parietal and occipital lobe [6]. The most common etiology of posterior reversible encephalopathy is hypertensive encephalopathy, uremic encephalopathy, pre-eclampsia and eclampsia [7]. There are multiple

reasons to cause this syndrome, effected patients have hypertension at the time of presentation or history of hypertension, even though, altered hemodynamic state can lead to pres [7]. The pathophysiological mechanism for pres are: 1) Endothelial damage with blood brain barrier disruption leading to fluid and protein transudation in the brain.2) Failure of cerebral autoregulation.3) cerebral vasoconstriction [8, 9].

Acute hypertension can lead to hyper perfusion and edema in the posterior circulation of brain in posterior reversible encephalopathy [9]. Neuroimaging is the key feature in the diagnosis of posterior reversible encephalopathy and best demonstrated by magnetic resonance imaging [MRI] [9]. Magnetic resonance imaging report shows symmetrical white matter edema in the posterior cerebellar hemispheres that involves the peritoccipital region bilaterally [9]. The prognosis of posterior reversible encephalopathy is usually benign [9]. In many cases of posterior reversible encephalopathy syndrome the neurological symptoms and cerebral lesion completely resolve with the treatment [9]. Control of blood pressure is necessary to prevent the irreversible damage to the central nervous system [9].

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