



POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME IN ECLAMPSIA: A RARE PHENOMENON

Obstetrics & Gynaecology

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ABSTRACT

preeclampsia can affect multiple organ systems due to hypertension and systemic endothelial dysfunction, one of the more delicate maternal systems impacted is the brain. It is not always the acute risk of preeclampsia and eclampsia on the brain that impacts maternal outcome. Cortical blindness is generally reversible, and permanent blindness from retinal vascular changes is rare [8]. Other than effective treatment of preeclampsia/eclampsia and termination of pregnancy, no specific therapy is indicated in pre-eclamptic women who experience ocular changes. A similar case with Eclampsia and blindness is presented here.

KEYWORDS

ECLAMPSIA, BLINDNESS

INTRODUCTION

Preeclampsia, a pregnancy specific syndrome that complicates 3–5% of all pregnancies, is a condition classified by new onset hypertension (>140/90 mm Hg) and proteinuria or evidence of end-organ damage [1]. While preeclampsia can affect multiple organ systems due to hypertension and systemic endothelial dysfunction, one of the more delicate maternal systems impacted is the brain. It is not always the acute risk of preeclampsia and eclampsia on the brain that impacts maternal outcome; but also the long-term cognitive changes, increased lifetime cerebrovascular risk and even persistent white matter lesions within the maternal brain have been reported in mothers with a history of preeclampsia [2–4]. One such sequelae is what we are reporting in the upcoming text.

CASE

A 23 years old female AD, admitted in our institute with complaints of amenorrhoea since 6 months with complaints of 4 subsequent episodes of abnormal generalised tonic clonic movements of limbs within last 4 hours. She was primigravida and married for one year. On admission she was unconscious, not responding to verbal stimuli and disoriented to time place and person. Blood pressure was 150/120 mm of Hg, pulse rate 96 beats per minute with moderate pedal oedema, no other significant finding on GPE. On systemic examination per abdomen 22 weeks sized uterus was palpable. Other systemic examinations were normal. On investigations She was put on conservative management for blood pressure, and intravenous antibiotics, anti epileptics drugs, indwelling catheter was placed. Regular monitoring of Blood pressure and strict input output charting was done.

Hb	8.3
BT	1'40sec
CT	4.10min
B Gp	O+
24hr Urine Protein	6.2g/24h
Urea	28
S. Creat	1.0
Sodium	138
Potassium	3.8
RBS	241
S. BIL	0.5
S. Uric acid	6.0

She again had similar episode of GTCS during hospital stay, this time the seizure was intractable and it was decided to terminate her pregnancy after due informed consent. Mode of termination was done. Patient delivered a preterm dead baby per vaginam and third stage of labor was uneventful. Her treatment was continued after her delivery. On the 2nd day after delivery she developed blurring of vision and headache for which ophthalmologist consultation was sought and on fundoscopy nothing significant was seen, symptomatic treatment was

given. Subsequently her complaints didn't subside and review examination revealed lateral rectus palsy of right eye, and papilloedema in both eyes, following which NCCT Brain was advised. Computed tomography revealed occipital lobe hypointense lesions and infarct. (fig1)

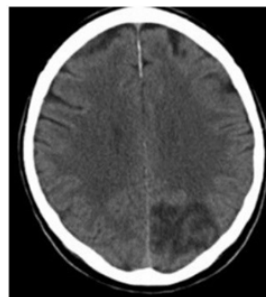


Figure 1

MRI Brain showed hyperintense lesions in right parieto-occipital lobes, surrounded by minimal edema, another small lesion is seen in the right fronto-parietal parasagittal region which is hyperintense on all sequences. (fig2) Neurological advice taken and she was started on antihypertensives, glycerol and carbonic anhydrase inhibitors. So in our index case blindness is the sequelae of Eclampsia. She was followed up on OPD basis and her blindness resolved in few weeks.

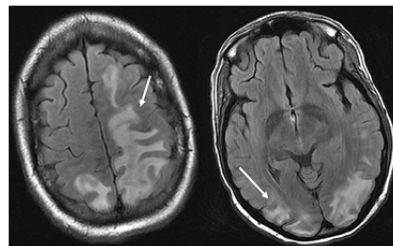


Figure 2

DISCUSSION

The high metabolic needs of the brain require that there is relatively constant cerebral blood flow (CBF) over a wide range of perfusion pressures [5]. Disruption of the finely tuned mechanisms of the BBB leads to increased BBB permeability, impaired regulation of flux of molecules across the BBB and vasogenic oedema that is potentially injurious to the brain [6]. Eclampsia, the new onset of seizures in women with preeclampsia, is often preceded by neurologic symptoms such as headache, visual changes, nausea and mental status changes [7]. Clinical imaging studies of patients with eclampsia, using

computed tomography and T2-weighted magnetic resonance as well as diffusion-weighted images, have shown cerebral oedema formation is more consistent with vasogenic oedema than cytotoxic oedema. In long-term studies of women with a history of preeclampsia or eclampsia, 34–37% and 41% respectively were found to have white matter lesions (WML) on MRI imaging, a significantly higher rate and volume than women with a history of a normotensive pregnancy (17–21%). Cortical blindness is generally reversible, and permanent blindness from retinal vascular changes is rare [8]. Other than effective treatment of pre-eclampsia/eclampsia and termination of pregnancy, no specific therapy is indicated in pre-eclamptic women who experience ocular changes. So wise decision of earliest termination of pregnancy with onset of first possible symptom may save the life of mother, thereby decreasing the maternal morbidity and mortality.

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