

Unusual Presentation of Transient Ischemic Attack with Eclampsia in Third Trimester of Pregnancy and it's Outcomes

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ABSTRACT

Hypertensive disorder in pregnancy is the third most common cause of maternal mortality, with incidence of 8%. Pre-eclampsia is a disorder of unknown etiology with incidence of 10-15% of pregnancies. Pre-eclampsia and stroke are significantly related to each other pathologically and temporally, incidence of stroke in pregnancy is 10 to 34 per 100000 pregnancy¹. We are reporting a case of G2P1L1 with 34 weeks period of gestation with previous LSCS with eclampsia came to casualty with history of convulsion episode at home, patient received loading dose of mgso4 and underwent emergency LSCS under general anesthesia, patient was shifted to ICU for further management and baby was shifted to NICU. Patient managed with the help of physician, anesthetist and neurologist.

Key words: *Pre-eclampsia, eclampsia, pre-term, emergency LSCS, transient ischemic attack, stroke.*

INTRODUCTION

Hypertensive disorder in pregnancy is the third most common cause of maternal mortality, with incidence of 8%. Pre-eclampsia is a disorder of unknown etiology with incidence of 10-15% of pregnancies, Pre-eclampsia and stroke are significantly related to each other pathologically and temporally, incidence of stroke in pregnancy is 10 to 34 per 100000 pregnancies.

CASE REPORT

30-year-old, G2P1L1 with 34 weeks period of gestation with previous LSCS with eclampsia came to casualty with history of convulsion episode at home. On examination patient was conscious, confused, with grade 3 pedal edema, no pallor, no icterus. PR 110 bpm, BP 200/120mmhg, RR 24bpm., SPO2 98% at RA. Systemic examination- CVS and RS examination were normal, CNS- patient was conscious and confused. Cranial nerves intact. Motor system normal, reflexes were normal. Per abdominal examination- abdominal wall edema 3+, uterus corresponds to 34week POG, cephalic presentation, relaxed, fetal heart sound good, no scar tenderness. Per speculum examination – no leak, no bleeding per vagina, per vaginal examination –cervical OS closed, uneffaced. All routine investigations were done- she had proteinuria 3+, spot urine protein creatine ratio was 0.6 rest all investigation were within normal limits. Provisional diagnosis of eclampsia was made and planned for termination of pregnancy. Patient received loading dose of mgso4 and underwent emergency LSCS under general anesthesia, patient was shied to ICU for further management and baby was shied to NICU.

Post operatively patient BP was constantly over 200/120 mmhg, refractory to IV labetalol, physician opinion was taken and advised for Nifedipine and patient was shifted to ICU for further management. Post operative Hb was 7gml dl, 1 pint PRBC was transfused, on POD 2 patient had an episode of desaturation and sudden cardiac arrest, cardiac resuscitation was done and patient brought back to normal, on examination bilateral coarse crepitation present, MD CT thorax showed aspiration pneumonia with bilateral pleural effusion, antibiotics were stepped up to Inj. PIPTAZ 4.5gm IV QID. Following cardiac event patient developed Left sided hemiparesis – neurology opinion taken, advised CT brain, MDCT brain showed no evidence of infarct, intraparenchymal hemorrhage, treated conservatively. patient improved symptomatically within 24 hours of starting treatment. Subsequent PIH profiles were normal and urine albumin became nil. suture removal was done on POD8, patient discharged on antihypertensive medication.

DISCUSSION

Preeclampsia is a pregnancy-specific syndrome, with documented blood pressures $>_{140/90}$ mm Hg are 20 weeks in previously normotensive women plus Proteinuria, 1 or end organ damage. Cerebrovascular disease is the leading cause of maternal mortality in women with preeclampsia, with most deaths caused by intracerebral hemorrhage (ICH). Profound dysfunction of the NVU in the setting of preeclampsia. Women with preeclampsia, particularly if they have headache, have been shown to have higher baseline cerebral perfusion pressure, lower cerebrovascular resistance, and decreased vasodilation in response to CO₂ inhalation, compared with healthy pregnant women². Cerebral perfusion pressure was elevated in women with preeclampsia even when hypertension was treated, and correlation between blood pressure and cerebral perfusion pressure was increased,² implying impaired autoregulation.

Arterial ischemic stroke (AIS) occurs when occlusion of a cerebral artery results in infarction of the central nervous system. AIS in women with preeclampsia can occur through multiple mechanisms, Peripartum cardiomyopathy is highly associated with preeclampsia and can cause acute systolic heart failure and arrhythmias, both of which can lead to cardio embolism, Severe vasospasm from RCVS can cause hypoperfusion distal to the point of spasm, resulting in AIS, Preeclampsia related hypercoagulability can also provoke in situ thrombosis in cerebral vessels, particularly in cases of eclampsia or the HELLP (hemolysis, elevated liver enzymes, low platelets) syndrome.

A similar case report on complete recovery of a primigravida with hemorrhagic stroke due to severe preeclampsia was reported [3] in Abuja the patient may present clinically with headache, altered consciousness, and seizure, focal neurological or visual disturbance. Our patient presented with headache, visual disturbance, and focal neurology (inability to move left upper and lower limbs). Neuroimaging is indicated in all pregnant patients whose clinical condition is suggestive of a cerebrovascular event. Magnetic resonance imaging (MRI) is well known for its far softer tissue contrast and multiplanar resolution compared with CT. This patient had a CT done due to non-availability of MRI.

Treatment for a transient ischemic attack or ischemic stroke includes lifestyle modifications, treatment of risk factors including hypertension, diabetes mellitus and lipid disorder, antiplatelet therapy and anticoagulation. Prior preeclampsia is an independent risk factor for future stroke, in women, particularly in middle age have suggested an association between

preeclampsia and cognitive decline this association was recently confirmed in a prospective population-based study showing an increased risk of vascular dementia.

CONCLUSION

Prevention and early diagnosis of pre-eclampsia / eclampsia and prompt treatment of the same can prevent grave complications. And a multidisciplinary approach, with a discussion between obstetricians, neurologists and anesthetists, is imperative to manage a suspected stroke in pregnancy.

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