A stormy and rare presentation: Eclampsia at 18 weeks of gestation

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Abstract

Eclampsia is an Obstetric emergency. It is uncommon in early second trimester and an early diagnosis will aid in preventing complications. We report an unusual case of eclampsia at an 18 weeks gestation with a good maternal outcome.

Keywords

eclampsia, pregnancy, Misoprostol, HELLP

Introduction

Eclampsia, a severe hypertensive disorder of pregnancy characterized by seizures in presence of pre-eclampsia and/or HELLP syndrome, usually occurs after 20 weeks of gestation. The incidence of eclampsia has decreased over the years as it is somewhat preventable with adequate prenatal care.¹ This case report describes, what might be the first reported case of confirmed eclampsia at 18 weeks of gestation in the English literature, in the absence of other underlying etiological factors.

Case report

MC, a 27-year-old primigravida from Senegal, presented for the first time to the accident and emergency department at 18 weeks of gestation. She complained of severe frontal headache and vomited 10 times that day. The companion described what seemed to be a tonic clonic seizure earlier that day for which she received intravenous diazepam in a local health center. She has been married for two years and there was nothing remarkable in her medical or surgical history.

Upon arrival to the hospital, she had another tonic clonic seizure with up rolling of the eyes and mouth frothing. Her blood pressure was 190/125 mm Hg. She was semi-conscious, afebrile with normal systemic examination. The tendon reflexes and fundoscopy were normal. The uterus was 18 week size and non-tender. Urine dip stick revealed protein 3+, blood 4+, ketone 2+ and glucose 1+. Capillary blood glucose was normal at 5 mmol/L.

Trans-abdominal scan showed a single viable fetus, all parameters corresponding to 17 weeks of gestation, adequate liquor and a normal looking placenta.

She was given intravenous diazepam, 5 mg along with an intravenous bolus dose of hydralazine 5 mg. She was shifted to the intensive care unit, commenced on phenytoin and hydralazine infusions.

Blood tests showed a normal hemoglobin of 12.0 g/dL, hematocrit of 0.35, decreased platelets at 84×10^9 , elevated white cell count at 19.0×10^9 with neutrophilia, normal coagulation profile, blood urea 2.4 mmol/L and creatinine of 70 μ mol/L. The sample for the liver functions revealed elevated aspartate aminotransferase of 1638 U/L, alanine aminotransferase (ALT) of 1132 U/L with normal bilirubin, glucose and protein. Serum uric acid was 0.46 mmol/L and LDH was elevated at 1375 U/L. Spot urine protein creatinine ratio was 1.74 g/L and 24 h urine protein confirmed the result. Peripheral blood film showed leucocytosis, schistocytes and mild polychromasia suggestive of low grade micro-angiopathy. Repeated blood sample was consistent with the picture of HELLP syndrome – haemolysis, elevated liver enzymes and low platelets – so a diagnosis of eclampsia with HELLP syndrome was made. The patient was commenced on

magnesium sulphate infusion after discontinuing the phenytoin infusion. The hydralazine infusion was continued and later changed to oral labetalol and nifedipine.

CT scan of the brain was suggestive of posterior reversible encephalopathy syndrome. Ultrasound of the kidneys was normal. A few hours later the patient was fully conscious with no neurological deficit. The patient and her husband were counseled regarding the seriousness of the condition and the need to terminate the pregnancy, and then consent was obtained. The termination was carried out using five doses of per vaginum misoprostol 400 μ g. She miscarried 24 h later, a normal looking stillborn female fetus, weighing 160 g. Placenta was sent for histopathology and reported as unremarkable.

Her condition and blood investigation results improved dramatically after the miscarriage. She was discharged home on the fifth post-abortion day and seen after six weeks in the outpatient department. She was off the antihypertensive medication and her blood pressure remained normal. The results for the autoimmune diseases, thyroid function tests and antiphospholipids antibodies were reported as normal.

Discussion

Eclampsia and preeclampsia are predominantly diagnosed after 20 weeks of gestation, unless there are underlying etiological factors complicating pregnancy namely partial mole, triploidy or antiphospholipid syndrome.^{2,3} Thomas et al.⁴ reported a case of superimposed preeclampsia at 16 weeks of gestation, continued to 20 weeks. One case of “pure” preeclampsia was reported by Hazra et al.⁵ where no predisposing or underlying etiological factors could be identified. This case is similar to our case as no underlying causes were identified, yet without the dramatic escalation to eclampsia. The rapid recovery after the termination of pregnancy along with the complete resolution of all manifestations of the disease confirms the diagnosis of eclampsia. Although eclampsia is somewhat deemed a preventable complication, the stormy presentation in our case could be attributed to the failure of the patient to start prenatal care before the onset of eclampsia. The other factor is the early onset of eclampsia before 21 weeks of gestation. These factors are identified by Sibai et al.⁶ as partially responsible

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for the failure to prevent eclampsia. This case highlights the fact that eclampsia and pre-eclampsia can certainly occur below 20 weeks' gestation in an otherwise normal pregnancy, and hence should be considered in any pregnant woman presenting with new onset hypertension or proteinuria regardless of the gestation age.

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Ethical approval

Written consent from the patient was obtained for publication.

Guarantor

Vaidyanathan Gowri.

Contributorship

All the authors were involved in managing the patient. Dr Saniya and Dr V Gowri made the management decisions. Manuscript drafted by

Dr Sarah and revised by Dr Shahila. Literature search done by Dr Shahila. Final version was drafted by Dr Saniya and approved by all the authors.

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