

Case Report: Delayed Post-partum Preeclampsia in rural Ecuador

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Abstract

Background: Delayed, Post-partum preeclampsia is an unusual presentation of preeclampsia. Delay in diagnosis at the time of presentation could result in progression to eclampsia. Consideration should be given to routine post-partum checkup at 3-4 weeks rather than 6 weeks in countries where home birthing is still common.

Case Presentation: We report a case of delayed, post-partum preeclampsia in a mother 4 weeks post-partum who presented to our emergency department with headache and abdominal pain. Hypertensive urgency was diagnosed. Subsequently, a 24 hour urine indicated significant proteinuria, and delayed postpartum preeclampsia was established. Her blood pressure normalized and adequate diuresis was maintained. Magnesium Sulfate was not initiated.

Conclusion: A high index of suspicion for preeclampsia is required in hypertension in the peripartum period. This is also true up to one month post partum. When should magnesium sulfate be discontinued in these patients who have adequate diuresis and normal blood pressures, the signs normally used in the immediate post-partum period that the preeclampsia has resolved?

Keywords

Preeclampsia, Ecuador, Hypertensive Disorders

Informe de caso: preeclampsia posparto tardía en el Ecuador rural

Antecedentes: la preeclampsia posparto demorada es una presentación inusual de la preeclampsia. El retraso en el diagnóstico en el momento de la presentación podría dar lugar a una progresión a la eclampsia. Se debe considerar el chequeo de rutina después del parto a las 3-4 semanas en lugar de a las 6 semanas en países donde todavía es común el parto en casa.

Presentación del caso: Presentamos un caso de preeclampsia posparto demorada en una madre 4 semanas postparto que se presentó en nuestro departamento de emergencias con dolor de cabeza y dolor abdominal. Se diagnosticó urgencia hipertensiva. Posteriormente, una orina de 24 horas indicó una proteinuria significativa y se estableció un retraso en la preeclampsia posparto. Su presión arterial se normalizó y se mantuvo una diuresis adecuada. El sulfato de magnesio no se inició.

Conclusión: se requiere un alto índice de sospecha de preeclampsia en la hipertensión en el período periparto. Esto también es cierto hasta un mes después del parto. ¿Cuándo debe interrumpirse el uso de sulfato de magnesio en estos pacientes con diuresis adecuada y presiones sanguíneas normales, los signos que se utilizan normalmente en el período inmediato posterior al parto que la preeclampsia ha resuelto?

Palabras clave

Preeclampsia, Ecuador, trastornos hipertensivos

Background

In low income countries (LICs) , hypertensive disorders of pregnancy continue to cause significant morbidity and mortality. Post partum hypertension can result from pre-existing hypertension, preeclampsia, persistence of gestational hypertension, or present for the first time post partum due to other causes, such as volume overload, medications (NSAIDs, Ergotamine, decongestants), Cerebrovascular Accident, or Thrombotic Thrombocytopenic Purpura.[1](#) Late onset severe preeclampsia has been reported up to six weeks post partum.[2](#)

Evidence has suggested that early detection of preeclampsia and early delivery, even prior to the availability of Magnesium Sulfate therapy or advanced neonatal care, produced significant reductions in eclampsia in high income countries.[3](#) In low income countries, policy appropriately continues to recommend greater prenatal services to identify prenatal preeclampsia, among other conditions.

Delayed postpartum preeclampsia is much less common than prenatal or intrapartum preeclampsia. In rural Ecuador, many childbirths continue to occur in the home, where blood pressure monitoring and proteinuria remain unmeasured. This complicates the ability to diagnose intrapartum and/or postpartum pre-eclampsia when it does occur.

Case Report

On the western slopes of the Ecuadorian Andes, in a poor, sub-tropical region, a 41 year old woman presented to the emergency department 28 days post partum with right upper quadrant pain and diffuse headache of seven hours duration. She has a history of hypertension diagnosed 5

years previously for which she was prescribed enalapril but discontinued therapy after 2 months.

No further evaluation of her hypertension was pursued. She is multiparous with eight pregnancies and seven vaginal deliveries. Her prenatal care prior to her most recent childbirth revealed blood pressures in the normal range, without proteinuria, and without pharmacological therapy. During and after an uncomplicated vaginal delivery, her blood pressures remained in the normal with the exception of one reading at 150/80.

At the time of presentation to the emergency department, 4 weeks post-partum, nausea and 2 episodes of emesis accompanied her epigastric and right upper quadrant (RUQ) abdominal pain of seven hours duration. Visual disturbances did not accompany her diffuse headache. She denied dyspnea. Her blood pressure was elevated to 180/100 without tachycardia, fever, or tachypnea. RUQ tenderness was noted on physical exam. Jaundice was not present. Neurologic exam was intact, without confusion, disorientation, or hyperreflexia.

Laboratory evaluation revealed the following: Hgb 13.0 g/dL, WBC 10,300, Plts 244,000, AST 30, ALT 24, Creatinine 0.82mg/dL, BUN 14, Lipase 62, Uric Acid 3.1, LDH 253, Albumin 3.8, Alkaline Phosphatase 368, Total Bilirubin 1.56mg/dL, Urinalysis revealed 1+ proteinuria without hematuria.

The patient was hospitalized and initial diagnostic considerations included acute fatty liver of pregnancy, hypertensive urgency, and cholelithiasis. The absence of “thunderclap” headache, visual disturbance, and neurological deficit suggested this was not consistent with reversible cerebrovascular syndrome (RCVS).

Her hypertension was treated with Enalapril but readings of 180/100 persisted. Her urine output was 1-2cc/k/hr on day one, and remained in the normal range throughout her hospitalization. On day two, abdominal ultrasound revealed normal hepatic parenchyma and a non-inflamed gall bladder with several 5mm stones. The common bile duct was not dilated. Head CT Scan revealed no hemorrhage or abnormal masses.

Atenolol and HCTZ were added on day three, but blood pressure measurements of 160/90 continued. Her abdominal pain resolved. Nifedipine was added, at which time the blood pressure began to normalize slowly and her headache dissipated. Delayed, postpartum pre-eclampsia was considered and a 24-hour urine collection revealed 3.7g of protein, confirming the diagnosis of late onset, severe pre-eclampsia. Due to resolution of symptoms and normalizing blood pressure, the decision was made to not initiate magnesium sulfate.

Prior to discharge, her headache completely resolved and blood pressures ranged from 120/80-130/90. She was discharged 48 hours after headache resolved and blood pressure normalized on one antihypertensive agent.

Discussion and Conclusions

Delayed, post partum preeclampsia was diagnosed due to the patient’s headache, abdominal pain, hypertension, hyperreflexia and proteinuria.⁴ Her prenatal and intrapartum course did not suggest preeclampsia. The delay in identification of the likely diagnosis of late onset, severe pre-eclampsia was due to the doubt in such a presentation so distant from her childbirth. Her normal hepatic parenchyma and unremarkable liver function did not suggest acute fatty liver of pregnancy.⁵ Absence of hemolysis, and normal platelets were not consistent with HELLP Syndrome. Head CT effectively ruled out hemorrhage. A hypertensive crisis distinct from severe pre-eclampsia seemed unlikely given the normal renal function, particularly in the presence of significant proteinuria. However, Magnesium Sulfate (MgSO₄) was not initiated in this patient, as her blood pressure began to normalize and her headache resolved. Retrospectively, she should have received MgSO₄ earlier to prevent progression to eclampsia.

The particular clinical question that this patient's condition brought to light is the use of MgSO₄ in delayed post partum severe preeclampsia. Standard of care appears to suggest using MgSO₄ for 24 hours or until the blood pressure decreases to reduce the risk of seizure. However, the traditional sign used in women with peripartum preeclampsia is diuresis. In this patient with delayed post partum severe preeclampsia, there was no oliguria. Had MgSO₄ been initiated in this case, what clinical parameters would have been useful to determine the timing of discontinuing MgSO₄, and based on what evidence?

Furthermore, it might be useful to revisit the recommendation of the routine 6 week post partum followup, which would miss these late post partum presentations of severe preeclampsia, particularly in LICs where home births are prevalent.

Foot note

1. Sibai BM, Stella CL. Diagnosis and management of atypical preeclampsia- eclampsia. *Am J Obstet Gynecol.* 2009;200(5):481.e1–481.e7.
 2. Gabbe S, Niebyl J, Simpson JL, et al. Hepatic and gastrointestinal diseases. In: *Obstetrics: Normal and Problem Pregnancies*. 6th ed. Philadelphia: Saunders; 2012:1025.
 3. Goldenberg RL, McClure MM, MacGuire ER, et al. Lessons for low-income regions following the reduction in hypertension-related maternal mortality in high-income countries. *International J of Gynecology and Obstetrics* (2011) 113:91-95
 4. Tan L, de Swiet M. The management of postpartum hypertension. *BJOG* 2002;109:733-6.
- Goldenberg RL, McClure MM, MacGuire ER, et al. Lessons for low-income regions following the reduction in hypertension-related maternal mortality in high-income countries. *International J of Gynecology and Obstetrics* (2011) 113:91-95
5. Matthys LA, Coppage KH, Lambers DS, Barton JR, Sibai BM. Delayed postpartum preeclampsia: an experience of 151 cases. *Am J Obstet Gynecol.* 2004;190(5):1464–1466.