Case report

Atypical Clinical Presentation of Early Postpartum Eclampsia

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Abstract

Eclampsia as a medical emergency during pregnancy and childbirth can first be manifested in the postpartum period, requiring prompt recognition and immediate treatment. It is characterized by convulsive seizures, often accompanied by other neurological symptoms. When it occurs within 48 hours after delivery, it is classified as early postpartum eclampsia.
This paper presents the case of a 21-year-old patient whose labor was induced at term due to massive proteinuria and gestational hydrops, despite normal blood pressure readings. Shortly after delivery, she developed a severe form of eclampsia, presenting with bilateral tonic-clonic seizures and impaired consciousness. Due to the highly unpredictable nature of eclampsia, particularly in atypical cases involving unrecognized preeclampsia or isolated massive proteinuria, prompt diagnosis based on the clinical presentation, along with an equally swift therapeutic response, is crucial to reducing maternal morbidity.

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Introduction

Postpartum eclampsia is a rare but serious condition that predominantly occurs within 48 hours after delivery, a period referred to as early postpartum eclampsia. It typically involves convulsive seizures in women who were previously diagnosed with preeclampsia during pregnancy (1). In rare cases, symptoms may appear more than 48 hours and up to four weeks after delivery, in which case the condition is classified as late postpartum eclampsia (2). In addition to seizures, common symptoms include headache, visual disturbances, dizziness, and epigastric pain. However, eclampsia can be presented atypically, even in the absence of hypertension, proteinuria, or significant oedema (3). Rapid clinical diagnosis and immediate treatment are essential to reducing maternal morbidity and mortality in the early postpartum period (1). We present a case of early postpartum eclampsia with an atypical clinical presentation in a patient who had antepartum proteinuria without hypertension with the patient's permission.

Case report

A 21-year-old primipara was admitted to the clinic at 38 weeks of gestation due to massive proteinuria (1680 mg in 24-hour urine collection) and prominent bilateral pretibial oedema. Her blood pressure on admission was within normal limits (135/80 mmHg), and laboratory results showed normal coagulation parameters, normal liver enzyme levels and no clinical or laboratory signs of anemia. Due to significant proteinuria and marked lower limb oedema, labor induction was initiated. The delivery proceeded without complications, and a eutrophic, full-term male newborn was delivered with Apgar scores of 7, 8, and 9. Approximately 1 hour and 35 minutes after delivery, the patient experienced a tonic-clonic seizure, followed by a comatose state characterized by absent corneal and ciliary reflexes, non-reactive pupils, and slow nystagmus. Her vital signs at the time included blood pressure of 160/100 mmHg, heart rate of 120 bpm, and peripheral oxygen saturation of 88%. She was immediately treated with 10 mg of intravenous diazepam and magnesium sulfate at an initial rate of 1 g/hour. An urgent brain MSCT scan was performed, which showed no evidence of acute ischemia, hemorrhage, mass lesions, or trauma. The patient was transferred to the Intensive Care Unit for continued management. Treatment included intubation and mechanical ventilation, along with analgosedation, gastroprotection, fluid resuscitation with colloid and crystalloid solutions, thromboprophylaxis, and an increased continuous magnesium sulfate infusion at 2 g/hour. Antihypertensive therapy with urapidil 25 mg intravenously was also initiated. Further diagnostic workup included abdominal and pelvic ultrasound, which revealed bilateral pleural effusions up to 30 mm, minimal pericholecystic fluid and splenomegaly. Cardiac ultrasound findings were within normal limits. With clinical improvement in vital signs, hemodynamic stability and respiratory function, the patient was extubated later the same day. On the second postpartum day, she developed a cough without dyspnea. A CT pulmonary angiography ruled out pulmonary embolism and confirmed acute pneumonia, with negative blood and urine cultures. Due to worsening laboratory parameters, a 7-day course of antibiotics and diuretic therapy was administered. Laboratory values normalized over the course of hospitalization, with reduced inflammatory markers and improved renal function. On the twelfth postpartum day, the patient was discharged in good general condition, following a nephrology consultation. She was diagnosed with nephrotic-range proteinuria without nephrotic syndrome and was advised to continue monthly follow-ups with a nephrologist. Although neurological evaluation and brain MRI were recommended, the patient did not pursue further neurological assessment.

Discussion

Preeclampsia, eclampsia, and HELLP syndrome are among the leading obstetric complications (great obstetrics syndrome) associated with significant maternal and perinatal morbidity. Most patients present with hypertension and proteinuria after 20 weeks of gestation and/or

within 48 hours postpartum (4). Gestational proteinuria is defined as protein excretion exceeding 300 mg in a 24-hour urine sample, or as persistent proteinuria (i.e., one or more positive results on a urine dipstick test) on at least two occasions spaced a minimum of four hours apart, but no more than one week (4). The case we report concerns gestational proteinuria, a condition for which there is still limited research.

Two prospective studies involving healthy nulliparous women found that approximately 4% of normotensive individuals developed gestational proteinuria. However, these studies did not examine how many of these women later developed preeclampsia or eclampsia (4). Recent long-term studies indicate that postpartum eclampsia accounts for approximately 11–44% of all eclampsia cases. A 10-year retrospective study reported a 5.7% incidence of postpartum preeclampsia, with 15.9% of those cases progressing to eclampsia (5). Notably, more than 50% of postpartum eclampsia cases occur in women without a prior diagnosis of preeclampsia. In fact, not all patients with newly diagnosed eclampsia exhibit classic symptoms such as hypertension, oedema, proteinuria, or hyperreflexia (5). One retrospective cohort study included pregnant women beyond 24 weeks of gestation who developed newly diagnosed proteinuria (≥300 mg/24h), excluding those with preeclampsia diagnosed within 72 hours of admission, chronic kidney disease or chronic hypertension. The study investigated the association between isolated proteinuria and the subsequent development of severe preeclampsia. Among the 165 women diagnosed with isolated gestational proteinuria, 38 (23.0%) progressed to severe preeclampsia (6). A similar case to ours was reported by Iranian authors, involving a woman who developed postpartum eclampsia with seizures that were resistant to both diazepam and magnesium sulfate. Elevated blood pressure was detected only after the onset of seizures. Like in our case, brain CT findings were normal, and blood pressure normalized one month postpartum This illustrates that seizures may occur in the absence of preceding preeclampsia, underscoring that eclampsia is not always preventable (7).

In conclusion, the patient presented in this case exemplifies the critical importance of timely medical intervention and urgent therapy, especially when the clinical presentation is atypical such as in this instance, when eclampsia occurred without a clear, prior diagnosis of preeclampsia, but rather as isolated massive proteinuria with normal blood pressure values.

Disclosure

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Atypična klinička prezentacija rane poslijeporođajne eklampsije

Sažetak

Eklampsija kao hitno stanje u trudnoći i porođaju može se manifestirati prvi put u babinju s jednakom nužnošću brzog prepoznavanja i liječenja. Karakterizira ju pojava konvulzivnih ataka uz ponekad i druge popratne neurološke simptome. Ukoliko se javi unutar 48 sati od porođaja tada govorimo o ranoj postpartalnoj eklampsiji. U ovom je radu prikazan slučaj 21.-godišnje pacijentice čiji je porođaj bio induciran zbog masivne proteinurije i obostranih pretibijalnih edema u terminu, a urednih vrijednosti krvnoga tlaka koja je nedugo nakon poroda razvila snažan oblik eklampsije po tipu bilateralnog toničko-kloničkog epileptičkog nadaja s poremećajem svijesti. S obzirom na iznimno tešku predvidljivost eklampsije, naročito u atipičnim slučajevima neprepoznate preeklampsije ili izolirane masivne proteinurije, urgentna dijagnoza na temelju tipične kliničke slike te jednako važni brzi terapijski odgovor ključ su za smanjenje morbiditeta majke.

Ključne riječi: eklampsija, poslijeporođajno razdoblje, gestacijska proteinurija