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Delayed Postpartum Eclampsia

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Abstract. Eclampsia is an important cause of maternal mortality in the developing world. While eclampsia typically occurs before or within two days of delivery, it can still occur between two days and a month after the patient delivers, known as delayed postpartum eclampsia. The presented case is a good example of late postpartum eclampsia, and it highlights the importance of prompt recognition and diagnosis during the postpartum period in order to initiate the appropriate treatment.

Keywords: Delayed postpartum eclampsia, Late postpartum eclampsia, Eclampsia, Postpartum.

Introduction

Eclampsia is one of the leading causes of maternal mortality in the developing countries. It is also a major cause of maternal and fetal mortality and morbidity in the United States, and even more devastating in underdeveloped nations. However, there is limited understanding regarding its relation to preeclampsia[1].

Eclampsia typically occurs either before or within two days of delivery. However, it can still occur between two days and a month after delivery, known as delayed postpartum eclampsia[2]. It is characterized by tonic-clonic seizures that last for few minutes[1].

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This case report highlights some important features that contribute to difficulties in diagnosing delayed postpartum eclampsia.

Case Report

The present study, describes the case of a 31-year-old gravida 2 para 2 patient who developed a seizure 12 days postpartum. The patient had a normal spontaneous vaginal delivery of a healthy 7-lb female infant with uncomplicated placental delivery, and she was subsequently discharged. Her medical history included hypothyroidism and chronic calcific pancreatitis requiring a Roux-en-Y pancreaticojejunostomy procedure. Her pregnancy was complicated by gestational diabetes managed with diet control, and she required admission to the hospital for acute or chronic pancreatitis. Magnetic resonance cholangiopancreatography conducted at the time showed no stones or intra-ductal strictures. However, there were significant inflammatory changes related to pancreatitis.

On postpartum day 12, the patient was found unresponsive in her room. It was presumed that she had a seizure, as there was evidence of bladder incontinence and tongue biting. Her physical examination was normal. During the initial workup, an electrocardiogram revealed prolonged Q wave and T wave (QT) interval, which was treated with magnesium sulfate. Computed tomography (CT) of the head did not reveal any acute intracranial abnormality. However, magnetic resonance imaging (MRI) of the head showed abnormally increased T2 signals in the subcortical white matter within the occipital and parietal regions, bilaterally, affecting the left side more than the right. This finding was compatible with posterior reversible encephalopathy. Preeclampsia laboratory tests were normal, with the exception of slightly elevated liver enzymes alanine transaminase (65 IU/L) and aspartate aminotransferase (48 IU/L). The consultation with the neurology and obstetric medicine services, the seizure was diagnosed as delayed postpartum eclampsia, which can occur up to 30 days postpartum. The patient continued treatment with magnesium sulfate, and she had no further seizure activity. Her neurological

status mostly normalized, with the exception of minor visual disturbances, which improved with time.

The prolonged QT decreased slightly with magnesium sulfate. The patient was not known to have had prolonged QT in the past treatment or any family history of sudden death. However, she was hypertensive. She started administering oral labetalol and improved gradually prior to discharge; as such, she did not require any antihypertensive medication at discharge.

Discussion

The clinical presentation of this current case study was consistent with some of the clinical features of delayed postpartum eclampsia reported in the literature. Most patients have no history of preeclampsia, and symptoms may include headache, visual changes, nausea, and vomiting[2]. Some patients may develop proteinuria; blood tests for preeclampsia are usually within normal limits. Differential diagnosis of seizure in a postpartum patient should include postpartum eclampsia, intracranial hemorrhage, hypertensive encephalopathy, cerebral venous thrombosis, brain tumor or abscess, alcohol or drug withdrawal, and metabolic disorders such as hypoglycemia, hyponatremia, and hypocalcemia. A workup should include initial blood tests including complete blood count, electrolytes, creatinine, urea, magnesium level, liver function tests, urinalysis, and uric acid. Interestingly, uric acid levels have been elevated in most eclampsia patients[3]. Brain imaging must be considered, mainly to rule out other causes of seizure[4]. While MRI is usually more sensitive than CT, the latter must be performed initially to rule out other diseases[4].

One of the major concerns with eclampsia is the complications associated with it. Significant life-threatening complications include disseminated intravascular coagulation and hemolysis, elevated liver enzymes, low platelets (HELLP) syndrome, pulmonary edema, and hepatic and renal failure. Complication rates vary according to whether the patient presents intra- versus postpartum[1]. Studies have showed increased incidence of neurological complications in women

who presented more than 48 hours postpartum[1,5]. The management of eclampsia mainly includes supportive measures and seizure and blood pressure controls. Given the fact that delayed postpartum eclampsia is generally considered a subdivision of eclampsia, it is usually managed in the same manner, with intravenous magnesium sulfate[1].

Conclusion

Prompt recognition and diagnosis of delayed postpartum eclampsia during the postpartum period is a key element in initiating the appropriate treatment. Therefore, is recommended that emergency and primary care physicians thoroughly investigate and carefully diagnose this disorder so as to save the lives of women at risk[2].

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حالة الإرتعاج المتأخر

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المستخلص. يعتبر مرض الارتعاج من أهم أسباب وفيات الأمهات في الدول الناميه، والذي يحدث غالبا خلال ٤٨ ساعه من الولاده أو قبلها وفي حال حدوثه من بعد تاريخ الولاده بيومين الى مده شهر فيطلق عليه مسمى حالة الإرتعاج المتأخرة. تشيرالحالة الملازمة الى أهمية تشخيص المرض في وقت مبكر وذلك للوقاية من حدوث مضاعفته.