Diagnostic Dilemma in Post Partum Seizures: A Case Report

Dr. Garima Anant¹, Dr. Vishakha Gupta², Dr. Amit Kumar³

Assistant Professor, Department of Anaesthesiology and Critical Care, PGIMS, Rohtak, India
PG, Department of Anaesthesiology and critical care, PGIMS, Rohtak, India
SR, Department of Anaesthesiology and critical care, PGIMS, Rohtak, India

Abstract: Seizure in the early postoperative period in a postpartum female always poses a diagnostic dilemma for both the anesthesiologist and the surgeon. We are reporting a 26-year-old primigravida with unremarkable history during the antenatal period who developed convulsions within 45 minutes of delivery performed by lower segment cesarean section under spinal anesthesia. All relevant causes of postpartum seizure were ruled out and surprisingly magnetic resonance imaging of the brain revealed cerebral neurocysticercosis. Appropriate management and timely intervention resulted in an uneventful recovery. The clinical manifestations of neurocysticercosis are variable and depend on the number, size, and location of cysts and the immune response of the host.

Keywords: Neurocysticercosis, Post-partum period, Seizures

1. Introduction

Seizures in early postpartum period are definitely a diagnostic dilemma. There may also be a considerable overlap in presentation of the conditions making diagnosis and treatment of seizures difficult. Convulsions in the puerperium should be treated as eclampsia until and unless proven otherwise. However, opportunities to identify other causes of convulsions should be vigorously pursued.

2. Case Report

A 26 yr old primigravida , who had an uneventful antenatal period presented at 37+2 weeks with foetal distress, for which emergency LSCS was done under regional (spinal) anaesthesia with 2ml of 0.5% bupivacaine heavy. Intraoperative period was uneventful, patient was comfortable, conscious, oriented and vitals were stable and patient was shifted to recovery room. 45 minutes later, patient complained of sudden severe intensity headache, she d...
worsening of clinical status in the post-operative period, an early neuroimaging becomes important. In our case, MRI showed multiple well defined ring enhancing altered signal intensity lesion noted with mild perilesional edema consistent with diagnosis of neurocysticercosis.

The clinical manifestation of neurocysticercosis is determined by site and stages of infection. Although fully viable cystic lesion usually remains asymptomatic or subclinical while decaying and dead cysts (granulomas/calcifications) are associated with perilesional inflammation and seizures. This may sometimes manifest as occasional or recurrent seizures, obstructing ventricular lesions (hydrocephalus) or mass effects (stroke). Diagnosis is usually made on the basis of clinical suspicion further strengthened by cranial imaging (MRI) and immunological testing. The calcified lesions have a propensity through disruption of a blood-brain barrier.⁶

The sudden onset of seizures with headache in postpartum period can be explained by the fact that in pregnancy there is enhancement of phagocytosis and monophilic and monocytic activity around the cysticerci leading to inflammation along with pregnancy hormonal induced angiogenic stimuli contributing to enhanced blood-brain barrier permeability leading to seizure activity. Severe headache itself in the post-operative period is a very important symptom and includes differential diagnosis of PDPH, impending eclampsia and even NCC.⁷ There is a paucity of literature with respect to pregnancy induced reactivation of NCC during postpartum period; there is a possibility of a shift towards an increase in immune response and manipulation of hormones by helminths that may increase their survival and parasite density. So a cause should be ascertained by a clinical history, physical examination, vitals charting, and neuroimaging.

4. Conclusion

Neurocysticercosis is one of the most common etiologies of seizures and should be considered in differential diagnosis as a possible cause of postpartum seizures which cannot solely be explained by eclampsia. Neuroimaging like MRI play an important role in diagnosis. Supportive treatment must be initiated promptly to prevent further neurological sequale.

References