

## **Status epilepticus in pregnancy: A challenging case in the emergency department**

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**Objective:** To report a case of status epilepticus (SE) in pregnancy and discuss the unique management challenges it presents in the emergency department (ED).

**Case Presentation:** A 28-year-old woman at 32 weeks gestation was brought to the ED with continuous seizures for 30 minutes. She had a history of epilepsy well-controlled on lamotrigine 200 mg twice daily. On arrival, she was having ongoing generalized tonic-clonic seizures. Vital signs were: pulse rate 135 beats/minute, respiratory rate 28/minute, blood pressure 150/90 mmHg, oxygen saturation 92% on high-flow oxygen, and temperature 37.8°C. The fetal heart rate was 170 beats/minute. Physical examination revealed bilateral pupil dilation, absent gag reflex, and bilateral Babinski signs. There was no evidence of trauma or neck stiffness.

**Methods:** Initial treatment included high-flow oxygen via non-rebreather mask and IV lorazepam (4 mg). When benzodiazepines failed to control seizures, rapid sequence induction (RSI) of anesthesia was performed using thiopental (250 mg) and rocuronium (50 mg) [1,2,3,4]. Post-intubation care, the patient underwent CT imaging and was started on a propofol infusion. Magnesium sulfate was administered (4g IV bolus followed by 1g/hr infusion) for possible eclampsia [5]. Continuous EEG monitoring was initiated in the intensive care unit [6].

**Results:** CT head showed no acute intracranial pathology. EEG revealed ongoing non-convulsive status epilepticus. Initial propofol infusion and magnesium sulfate did not fully control seizure activity. Seizures were eventually controlled after 6 hours with the addition of IV levetiracetam and increased propofol infusion. Blood tests revealed Lamotrigine levels were subtherapeutic at 1.2 mg/L. Magnesium levels were monitored and maintained within the therapeutic range. The patient was extubated after 48 hours with no neurological deficits and underwent an elective caesarean section at 34 weeks, delivering a healthy baby.

**Discussion:** This case highlights the complexities of managing SE in pregnancy. Physiological changes in pregnancy can alter antiepileptic drug pharmacokinetics, potentially leading to subtherapeutic levels and breakthrough seizures [7]. The decision to proceed to RSI was based on the failure of first-line treatments and the risks of prolonged seizures to both mother and fetus [8]. Continuous EEG monitoring was crucial in identifying ongoing non-convulsive status epilepticus and guiding treatment escalation [9].

**Conclusion:** Status epilepticus (SE) in pregnancy requires a multidisciplinary approach involving emergency medicine, neurology, obstetrics, and critical care. Prompt recognition, appropriate first-line treatment, and early consideration of airway management are crucial. This case underscores the importance of continuous EEG monitoring and the need for close follow-up of pregnant patients with epilepsy.

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