B4

Ginamarie Gioia B.S. Advisor(s): Michael Mahla M.D.

Co-author(s): Dr. Michael Goldberg, Dr. Andrew Chuang

Propofol Frenzy Syndrome in a Pediatric Patient

Propofol Frenzy Syndrome in a Pediatric Patient

Introduction

Propofol frenzy syndrome is marked by acute, seizure-like activity, including tonic-clonic and involuntary jerking movements, typically of the hands and neck, during or after anesthesia. The pathophysiology and duration of these symptoms are poorly understood. The syndrome is thought to be more common in females and typically occurs in younger patients, although no large-scale studies exist to confirm incidence rates. Diagnosis is based on patient symptoms, propofol use during anesthesia, and exclusion of other neurological disorders.

Case

F.B., a 16-year-old female, presented with tenesmus, fever, and perirectal pain, diagnosed with a large pre-sacral fluid collection, suspected of being an abscess or neoplasm. She underwent an exploratory laparotomy, revealing a loculated mass with adhesions and 1L of purulent drainage, followed by antibiotic treatment in the PICU with no adverse events. F.B. underwent five additional incision and drainage procedures without complications.

In the 6th procedure, F.B. received monitored anesthesia care with a continuous infusion of 380mg propofol, 100 mcg fentanyl, and 1000mg acetaminophen. She remained hemodynamically stable. Upon arrival at the PACU, she exhibited rhythmic movement of her right upper extremity and appeared confused. The symptoms progressed to tonic jerking, suggestive of a seizure. F.B. was given 2mg of midazolam, partially alleviating symptoms, followed by 50mg ketamine, which stopped the jerking. She returned to baseline mentation.

EEG showed irregular motor movements without epileptic activity, and brain MRI, autoimmune, and anti-NMDA antibody tests were all negative. No other neurological or psychological causes were found.

Conclusion

Propofol frenzy syndrome is a rare but serious side effect of propofol. Limited research exists on its pathogenesis and incidence. Early detection and improved diagnostic criteria could improve patient outcomes.