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Lacosamide/levetiracetam/valproate

Lack of efficacy: case report

A 21-year-old woman exhibited lack of efficacy during treatment with levetiracetam, valproate and lacosamide for focal to bilateral tonic-clonic (FBTC) seizures [dosages and routes not stated].

The woman was admitted to the emergency department of a hospital with generalised fatigue associated with continuous low-grade fever resistant to unspecified antipyretics for 3 days. She developed unremitting nausea and abdominal pain associated with a high-grade fever, and two FBTC seizures on subsequent 4th day. Her medical history was significant for mild COVID-19 infection 5 weeks previously. Upon admission, examination revealed only elevated D-dimer level. She started receiving levetiracetam and discharged from the hospital. However, she experienced five FBTC seizures over the subsequent 2 days despite the addition of valproate and lacosamide to her anti-seizure medication (ASM) regimen, indicating its lack of efficacy. Her fever persisted and she developed convulsive status epilepticus. Therefore, she was was again admitted to the hospital and intubated, transferred to the ICU. She was maintained on a midazolam drip for seizure control. On day 2 of ICU admission, midazolam tapering was attempted, which resulted in breakthrough seizures. Subsequently, autoimmune encephalitis was suspected, and methylprednisolone and immune globulin [immunoglobulin] were initiated. On day 6 of ICU stay, gradual taper of the midazolam was successful, and she was completely discontinued from that drug on day 7. While in intubated condition, she was transferred to another centre for further investigation and management. Her ASMs at the time included phenobarbital, levetiracetam and lacosamide. Further investigations confirmed diagnosis of multisystem inflammatory syndrome in adults. She was subsequently discharged on a prednisone regimen. She remained seizure free at follow-up visit 3 months later.

Nawfal O, et al. New-onset refractory status epilepticus as an early manifestation of multisystem inflammatory syndrome in adults after COVID-19. Epilepsia 63: e51-e56, No. 5, May 2022. Available from: URL: http://doi.org/10.1111/epi.17231

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