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Levetiracetam

Worsening of chronic post-hypoxic myoclonus (Lance-Adams syndrome) with functional decline following a decrease in the dose of levetiracetam (rebound effect): case report

A 22-year-old woman experienced worsening of chronic post-hypoxic myoclonus (Lance-Adams syndrome) with functional decline following a decrease in the dose of levetiracetam, conferring a rebound effect. Levetiracetam was given to treat chronic post-hypoxic myoclonus (Lance-Adams syndrome).

The woman was hospitalised due to cardiac arrest triggered by status asthmaticus in the setting of polysubstance abuse. She was resuscitated and later intubated for respiratory failure and concurrent myoclonic status epilepticus. Once her condition stabilised, she continued to experience myoclonic seizure episodes, which were ultimately controlled with a regimen of valproate-semisodium [divalproex sodium], levetiracetam [route not stated; initial dosage not stated] and clonazepam. She continued to demonstrate severe intention myoclonus in all the extremities and vocal musculature. She was diagnosed with chronic post-hypoxic myoclonus (Lance-Adams syndrome). On admission to inpatient rehabilitation, the dosages of valproate-semisodium and clonazepam were increased. Additionally, the dosage of levetiracetam was increased to 2g twice daily. Due to the concern of mood aggravation, the dose of levetiracetam was reduced; however, worsening of the chronic post-hypoxic myoclonus was observed with functional decline, conferring a rebound phenomenon [time to reactions onsets not stated].

Consequently, the dose of levetiracetam was increased again and pyridoxine was added with some improvement in her mood symptoms. Her severe intention myoclonus, swallowing and dysarthria also improved. As a result, her percutaneous endoscopic gastrostomy (PEG) tube was removed. Despite aggressive pharmacologic treatment, her mobility remained limited and she remained dependent for self-care and transfers with overhead lift.

Olsen DG, et al. Triple pharmacotherapy in the treatment of refractory chronic posthypoxic myoclonus (Lance-Adams syndrome): A case report. P M and R - The Journal of Injury, Function and Rehabilitation 11 (Suppl. 2): S133, Nov 2019. Available from: URL: http://doi.org/10.1002/pmrj.12271 [abstract]