

Amantadine

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Hallucinations, agitation and withdrawal syndrome in the form of prolonged hypoactive delirium: case report

A 52-year-old woman developed hallucinations and agitation secondary to drug toxicity during treatment with amantadine for spinocerebellar ataxia. Additionally, she developed withdrawal syndrome in the form of prolonged hypoactive delirium following amantadine withdrawal [*not all duration of treatments to reaction onsets and outcomes stated*].

The woman, who had depression, hyperthyroidism and spinocerebellar ataxia, had been receiving oral amantadine 300mg daily since 2.5 years. Subsequently, she was admitted with 2–3 weeks of hallucinations. Lab tests revealed an underlying acute kidney injury, and she was found COVID-19 positive. Her other work-up was unremarkable. Vitals revealed HR of 104 [*unit not stated*]. She was alert and was answering questions appropriately. Hallucinations were suspected to have developed secondary to amantadine toxicity by a neurology service.

The woman's was recommended a 3-day amantadine taper, which was shortened to 2 days by the primary service, and then stopped. Her serum amantadine level was 1505 ng/dL indicating toxicity. She continued to have hallucinations with agitation. Hence, an electroencephalogram and lumbar puncture were performed, which were normal. Three days after stopping amantadine, her hallucinations resolved but she became progressively somnolent and disoriented. She was not consistently speaking with providers, and later required assistance in feeding and was not reliably following commands. Initially, COVID-19 encephalopathy was presumed, and she was scheduled for repeat lumbar puncture.

The woman was re-initiated on oral amantadine 200mg prior to repeat testing. She became alert within 2 days, was speaking in full sentences, and oriented to person, month and situation. Her prolonged delirium immediately resolved after amantadine re-initiation. Her initial presentation of hallucinations and agitation was considered secondary to amantadine toxicity. Based on all the findings, amantadine withdrawal syndrome in the form of prolonged hypoactive delirium was confirmed, and she was discharged to subacute rehab.