Letter to the Editor

Comment on “Probable Tapentadol-Associated Serotonin Syndrome After Overdose”

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TO THE EDITOR:

We read with interest the report by Walczyk et al¹ of a male with tapentadol overdose whose clinical presentation was ascribed to serotonin syndrome based on meeting the Hunter Serotonin Toxicity Criteria (HSTC) of a serotonergic agent being ingested, combined in this case with tremor and hyperreflexia. We find this unusual because the clinical presentation would be far more consistent with an opioid overdose followed by opioid withdrawal after a large dose of intramuscular naloxone was administered.²

Tapentadol is a very weak serotonin reuptake inhibitor³ and is highly unlikely to cause significant serotonin toxicity. A previous study has shown that tramadol, which does contain serotonin reuptake inhibition, has a low likelihood of producing serotonin syndrome as defined by HSTC (0 of 71 overdose cases) and that opioid-like effects were far more important.^{4,5} Tapentadol has an order of magnitude less serotonin reuptake activity and is unlikely to be able to produce serotonin toxicity.

Neurotoxic adverse effects and “syndromes” are becoming increasingly common with the widespread use of psychopharmacological agents that affect multiple receptor types. This has meant that patients present with unusual mixtures of autonomic and neuromuscular effects, often different to the classic syndromes such as serotonin toxicity, anticholinergic delirium, or neuroleptic malignant syndrome. In all cases, the treatment must focus on removal (or reduction) of the implicated agent.⁶ Classifying each patient’s complex of symptoms and

signs is far less important and can often result in the use of multiple inappropriate antagonists, causing further adverse effects. Supportive treatment is far more important than the use of specific antagonists.⁷ Cases such as this one reported by Walczyk et al are best looked at through the lens of Bayesian analysis as to the most likely cause of the symptoms, with ideally an emphasis on supportive care of the overdose.

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