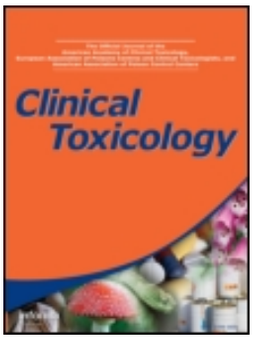

Clinical Toxicology

ISSN: 1556-3650 (Print) 1556-9519 (Online) Journal homepage: informahealthcare.com/journals/ictx20

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To cite this article: Stephen Pfeiffer, Samantha Gunkelman & Martha Blackford (2015) Psychotropic exposures in pediatric patients: Symptomatic iloperidone and vilazodone ingestions, Clinical Toxicology, 53:3, 188-188, DOI: 10.3109/15563650.2015.1004583

To link to this article: https://doi.org/10.3109/15563650.2015.1004583

Published online: 03 Feb 2015.

Clinical Toxicology (2015), **53**, 188

ISSN: 1556-3650 print / 1556-9519 online
DOI: 10.3109/15563650.2015.1004583

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LETTER TO THE EDITOR

Psychotropic exposures in pediatric patients: Symptomatic iloperidone and vilazodone ingestions

To the Editor:

Pediatric exposures to psychotropic drugs account for one of the top 5 substance exposures reported to regional poison control centers.[1] We describe our experience with pediatric ingestions of iloperidone and vilazodone.

Our first patient was a previously healthy three-year-old Caucasian female who was brought to emergency department (ED) within an hour of a suspected ingestion of iloperidone: 3.2 mg/kg. In the ED, she was tachycardic (heart rate (HR): 132 beats per minute (bpm)), lethargic, and ataxic with a respiratory rate (RR): 22 breaths per minute, blood pressure (BP): 95/46 mmHg, oxygen saturation: 96%, and Glasgow Coma Scale (GCS): 10–12. Laboratory tests indicated decreased serum bicarbonate (19mEq/L) and elevated serum lactate (3 mmol/L). She was transferred to our tertiary pediatric medical center where she continued to have an altered mental status (difficulty following commands or verbalizing, drowsiness, intermittently interactive, and ataxia); she continued to be tachycardic (HR: 153 bpm) and an electrocardiogram noted a borderline prolonged corrected QT interval (QTc) of 477 ms 6–7 h post ingestion. Her QTc normalized to 415 ms by 24 h but her HR ranged from 80 to 129 bpm. Her alerted mental status resolved at 36 h post ingestion but her tachycardia persisted while awake, HR: 120–165 bpm. She was medically stable by hospital day 3. Her iloperidone serum concentration at 7 h post ingestion was 71 ng/ml (reported therapeutic concentrations: 5–10 ng/ml).[2]

Our second patient was a previously healthy 20-month-old male who was brought to the ED within an hour of a suspected ingestion of vilazodone: 5.6 mg/kg. He had vomited about 20 min after the exposure and his initial vitals in the ED were HR: 144 bpm, RR: 44 breaths per minute, oxygen saturation: 100%, BP: 111/61(mean arterial blood pressure: 80) mmHg, pupils were bilaterally 6 mm and reactive, and GCS: 12–14. He vomited twice in the ED and was noted to be flaccid and responsive only to painful stimuli after the second episode. He had a brief episode, <1 min, of becoming tense and "shaking" within 2 h post ingestion. Laboratory evaluation revealed normal basic metabolic profile and a venous blood gas with pH: 7.23, carbon dioxide: 62 mmHg, oxygen: 36 mmHg, and bicarbonate: 26.5mEq/L. He was transferred to our tertiary pediatric intensive care unit. Upon arrival, his GCS was 9 with no purposeful movement, responsive only to noxious stimuli, sluggish pupils, frequent tremors, and flailing of arms and legs. His mental status slowly improved to baseline by 36 h without any further seizure activity, fine tremors resolved by day two, and his tachycardia resolved by day 3.

To date, no published pediatric iloperidone ingestions were identified and only one pediatric vilazodone ingestion has been published.[3] Based on our experience, both the drugs caused symptoms within 1–2 h that resolved by 72 h. High serum iloperidone concentrations resulted in a mildly prolonged QTc, tachycardia, and altered mental status; exposure to vilazodone resulted in tremors, seizures, and altered mental status. Providers should be aware that symptoms are likely to occur with even small ingestions in toddlers and may persist for several days.

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Declaration of interest

The authors report no declarations of interest. The authors alone are responsible for the content and writing of the paper.

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Received 17 December 2014; accepted 2 January 2015.
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