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Survival of Combined Overdose with Very High Doses of Clozapine and Blonanserin: A Case Report

Sir,

Schizophrenia (Sz) is associated with an approximately 5% lifetime risk of suicide¹; the 10-year risk is >8 times that in the general population.² Whereas this risk may be attenuated by clozapine,^{3,4} patients with Sz have been known to overdose with clozapine itself.⁵ A history of a suicide attempt is a predictor of future risk of attempted as well as completed suicide in Sz.⁶ In this context, we had earlier reported a young woman who had survived a >10,000 mg overdose with clozapine.⁷ We now report a second unsuccessful suicide attempt by this woman, which is unusual because

of the combined use of very high doses of two antipsychotics. The patient's consent was taken for publishing this article, and she was assured that her identity would not be revealed.

Case Report

A 24-year-old woman diagnosed with Sz had survived an intentional overdose with 10,000 mg of clozapine in June 2021. After recovery, she was maintained on clozapine 100 mg/d and blonanserin 16 mg/d along with other necessary medicines; the medications were dispensed daily by her mother to preclude a repeated suicide attempt. Adding blonanserin to clozapine is a common practice in our setup in case of treatment refractoriness with clozapine. However, unknown to her family, she discovered where the medications were kept and, in August 2021, in a fit of anger, she overdosed with 40 tablets (4000 mg) of clozapine and 70 tablets (560 mg) of

blonanserin. The overdose was discovered in two hours, and she was brought to the emergency room with symptoms of drowsiness, confusion, and irrelevant talk.

She was treated with gastric lavage, and activated charcoal was administered. Physical examination was largely unremarkable except for a heart rate of 124 bpm. Barring sinus tachycardia, her ECG was normal. Standard laboratory test results were within normal limits. She was managed with ivabradine 5 mg twice daily and prophylactic antibiotics. Drowsiness, slurred speech, and tachycardia remitted by Day 3. Low serum potassium of 2.5 mEq/L was corrected with oral potassium chloride. By Day 6, she had sufficiently recovered and was discharged. She is presently stable on clozapine 200 mg/d along with other necessary supporting medications; further precautions are being taken to preclude another intentional medication overdose.

Discussion

There is little literature available on blonanserin overdose. A PubMed search conducted on May 21, 2022, with the search terms “blonanserin” and “overdose” retrieved no reports. An identical Google search on the same date found one report of a 96 mg overdose.⁸ Our report, therefore, is the highest blonanserin overdose on record. We report the case to document not only the highest overdose with blonanserin but also the nonfatal overdose with the combined use of very high doses of two antipsychotics.

We did not have access to facilities for assessment of clozapine or blonanserin blood levels, so we do not know how much of the ingested drugs was actually absorbed, given the unknown time to peak-levels of these drugs upon overdose, the unknown gastric emptying time under conditions of a drug overdose, and the effect of the gastric lavage performed 2–3 hours after overdose. Absorption, however, must have been substantial because she was already in a confusional state two hours after the overdose. Despite this, we consider that the survival of our patient should not be construed as the safety of these drugs in overdose; for example, clozapine overdose has been associated with seizures,⁷ rhabdomyolysis,⁵ and death.⁹ Lack of data on follow-up symptoms can be considered a limitation of the article.

Declaration of Conflicting Interests

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