

Hemadsorption Therapy in Severe Psychotropic Drug Overdose: A Case Report

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Introduction

Hemadsorption devices like CytoSorb® are increasingly utilized in critical care for drug intoxication, particularly when antidotes are unavailable or ineffective. This technique facilitates rapid drug removal, improving patient outcomes in severe overdose cases.

Methods

A 23-year-old man with a history of personality disorder and previous drug abuse was admitted to the emergency department in an altered state of consciousness after ingesting multiple psychotropic medications. He consumed approximately 60 tablets of Quetiapine 50 mg (3000 mg total), 28 tablets of Clozapine 100 mg (2800 mg total), 25 tablets of Paroxetine 20 mg (500 mg total), 10 tablets of Delorazepam 0.5 mg (5 mg total), and 10 tablets of Alprazolam 1 mg (10 mg total). Upon arrival, he had a Glasgow Coma Scale score of 8, peripheral oxygen saturation 80% on room air, normal blood pressure, sinus tachycardia, and a QTc interval of 494 ms.

Mechanical ventilation was initiated. Esophagogastroduodenoscopy revealed numerous ingested tablets, including 30 quetiapine tablets and various fragments, which were removed. The patient was transferred to the ICU and treated with CVVHDF connected to a CytoSorb® cartridge to accelerate drug removal from the bloodstream. Blood samples were collected before and after 24 hours of hemoadsorption. Due to low baseline concentrations of some drugs, only paroxetine, alprazolam, clozapine and norclozapine levels were measured.

An informed consent was obtained from the patient for publication of this case report.

Results

The baseline and the 24-hour drugs concentrations are shown in Fig. 1.

Hemadsorption continued additionally for 24 hours with two cartridges over 48 hours. Following hemadsorption, the patient regained consciousness, became cooperative, and was extubated on day two. By day five, patient was transferred to the psychiatric ward.

Conclusion

Hemadsorption with CytoSorb® was safe, feasible, and effective in removing multiple psychotropic drugs in this case of severe overdose.

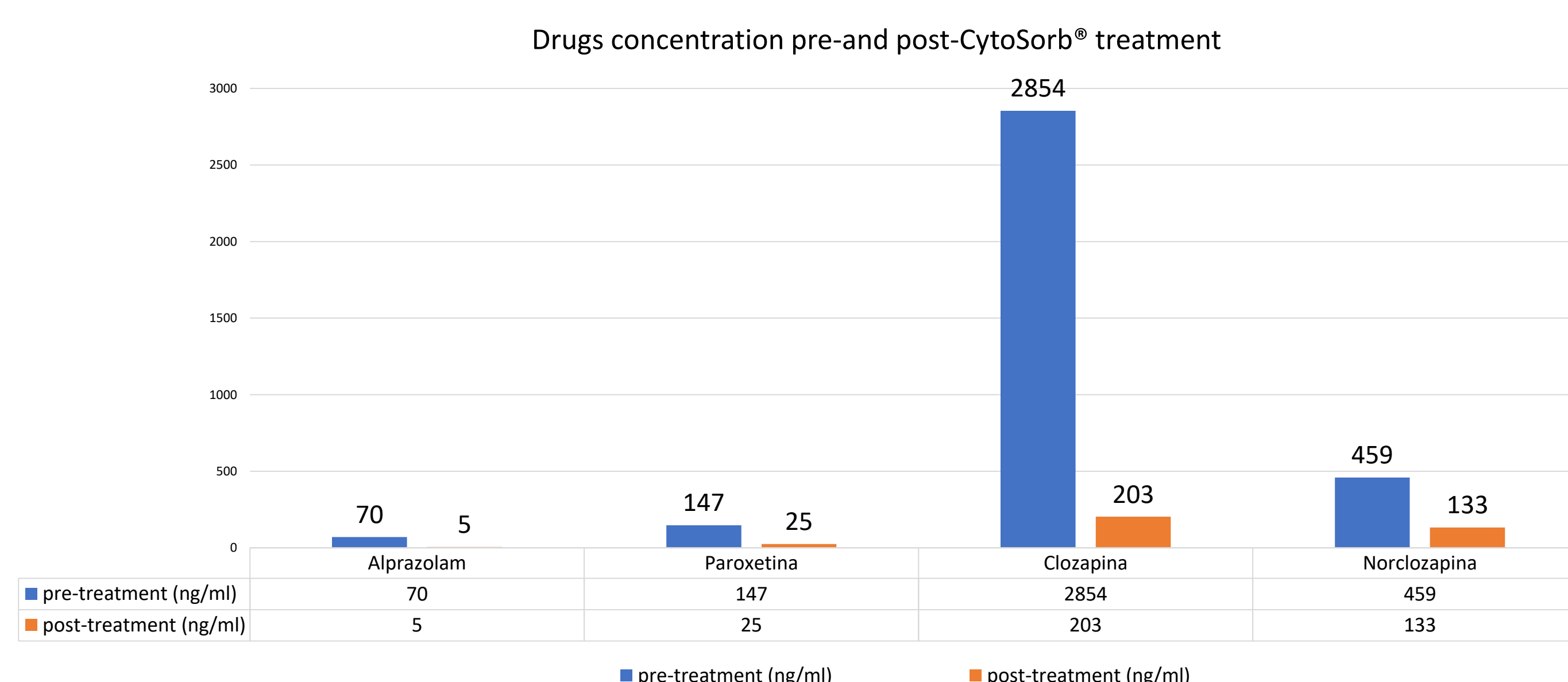


Figure 1: Drugs levels during hemadsorption treatment