

Depressing Jerks: Bupropion Overdose Causing Status Epilepticus

Izzah Nadzrina Aimienur Suhaimi¹, Aina Yasmin Hajaludin¹, Alzamani Mohammad Idrose²

¹ *Emergency Department, Hospital Kuala Lumpur*

Introduction:

Bupropion is an atypical antidepressant used in managing depression. Its primary mechanism of action is by blocking dopamine and norepinephrine reuptake. In toxic doses, patients may present with seizures that occur much later than the ingested time. We present a case of Bupropion overdose that came to us with status epilepticus.

Case Description:

A 45-year-old gentleman with an underlying of Depression on Tab Bupropion 150mg daily presented to us after being found unconscious with suspicion of intentional ingestion of Bupropion. Empty strips were found, estimated about 6g of Bupropion (40 tablets) and 0.12g of Zolpidem (12 tablets). Upon arrival he appeared drowsy but arousable. He denied any focal complaints. Initial laboratory data was unremarkable. Electrocardiography (ECG) revealed sinus rhythm at 95 beats/minute with no prolonged QTc interval. Toxicology screen for illicit drugs, salicylate and acetaminophen were all below detectable levels. Beyond 18 hours post ingestion patient had 5 witnessed generalized tonic-clonic seizures aborted with Intravenous (IV) Valium and was intubated for cerebral protection. There were no subsequent fitting episodes post intubation. A computerized tomography (CT) scan of the brain was performed, and results were unremarkable. Blood parameters were clear apart from mild transaminitis. Management comprised continuation of mechanical ventilation, IV Thiamine 200mg twice daily and IV Valium per needed. The patient was admitted to the high dependency ward (HDW) for further management.

Discussion:

Bupropion is known to cause seizures following overdose occurring in about 15% of exposure and less than 5% incident of status epilepticus. Cardiac arrhythmias such as QTc prolongation were also reported. Symptom onset is usually within 4-6 hours though severe toxicity may be delayed up to 18-24H. They usually resolve within 18 hours in mild cases and up to 48 hours in severe cases. It is normally managed supportively; and with antiepileptic therapy if seizure is present.

Conclusion:

Bupropion-overdose patients need to be monitored closely with extended observation. Our patient manifested seizures after ingesting a toxic dose of Bupropion 18 hours later. The managing team need to avoid discharging such patients early and an observation period of 48 hours is reasonable.

Keywords: Bupropion, seizures, status epilepticus