

INTRODUCTION

Ivermectin is a broad-spectrum antiparasitic agent that was once used as a treatment for COVID-19. Neurological adverse effects are rare but can occur in certain cases. We report a case of ivermectin toxicity presenting with neurological symptoms.



CASE REPORT

A 16-year-old girl with no prior psychiatric or medical history presented to the emergency department 15 hours after deliberately ingesting 30 tablets of ivermectin (12 mg each) and 5 tablets of paracetamol (500 mg each) due to family-related stress. Following ingestion, she experienced dizziness, vomiting, blurred vision, unsteady gait, and visual hallucinations. On examination, she was alert, drowsy but oriented, and hemodynamically stable. Self-inflicted scars were noted on her left forearm. Neurological examination revealed right diplopia, right horizontal nystagmus, and a positive finger-pointing test on the right side. Other physical examinations were unremarkable, with normal blood investigations and a normal CT brain. After symptomatic treatment, her symptoms resolved, and no neurological deficits were observed prior to discharge. She was diagnosed with persistent depressive disorder with a major depressive episode. She was discharged well with psychiatric follow-up arranged.

DISCUSSION

Ivermectin is highly lipophilic but usually does not cross the blood-brain barrier due to the P-glycoprotein (P-gp) efflux transporter, which prevents neurotoxicity at therapeutic doses. However, in rare cases, such as genetic mutations affecting P-gp or massive overdoses, it can penetrate the CNS and cause neurotoxic effects like ataxia, tremors, seizures, encephalopathy, and coma. The National Poison Centre considers doses above 2 mg/kg toxic in adults. Mild symptoms typically resolve within 48 hours. In one case of extreme ingestion (414 mg/kg), long-term polyneuropathy was reported. There is no antidote; treatment is supportive. Prognosis is generally good unless severe complications like hypotension or respiratory failure occur.

CONCLUSION

Although ivermectin therapy is generally well tolerated, rare adverse neurological effects, as seen in this case, can occur. As the treating physician, a thorough examination must be performed to ensure that no important findings are missed or overlooked.

REFERENCES

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