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When Treatment Becomes Trouble: A Case of Trihexyphenidyl Toxicity

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Introduction

Trihexyphenidyl or commonly known as Artane, is a muscarinic (M1) receptor antagonist which is commonly used in Parkinson's disease and to relieve neuroleptic-induced extrapyramidal symptoms (EPS). Adverse effects in overdose include irritability and psychomotor agitation. We report a rare occurrence of non-accidental trihexyphenidyl ingestion at our emergency department (ED).

Case Description:

A 26-year-old lady with underlying schizoaffective disorder presented to ED for trihexyphenidyl ingestion. The tablets was her own prescription and she took a total dose of 20mg at 8pm with suicidal intention. She presented to the ED at 1 hour post ingestion, complaining of dizziness and dry mouth. She had mild abdominal discomfort with no active gastrointestinal losses. Upon arrival, the patient was alert, vital signs were stable and able to provide good history. Her blood glucose was 5.1. Pupils were dilated 4mm bilaterally and reactive. The patient was given activated charcoal and blood investigations taken showed normal full blood count, renal and liver profiles. Serum acetaminophen was taken to rule out possible co-ingestion and it was within normal parameters. Urine test was not remarkable. Patient was well throughout observation in ED and was admitted. She was discharged well after 24 hours observation in ward.

Discussion:

Trihexyphenidyl is the most common anticholinergic drug reported for substance abuse due to its euphoric effect. The daily recommended dosage is 15mg per day and adverse effects of this drug are dose-dependent. Manifestation of anticholinergic toxidrome and psychosis is observed at high doses. While it is uncommon, a fatal case was reported in 2011 after overdose ingestion. The treatment for toxicity is supportive, and it is also important to rule out the possibility of co-ingestion of other drugs such as tricyclic antidepressants, antihistamines and alcohol consumption as it may potentiate its toxicity effects.

Conclusion:

Trihexyphenidyl overdose, though rare, poses risk of severe toxicity. This case underscores the need for rapid recognition, vigilant monitoring and psychiatric assessment in emergency setting to prevent life-threatening complications and recurrence.

References:
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