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Lamotrigine Overdose with urine Toxicology Positive for Phencyclidine: A Case Report of Possible Cross-Reactivity

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ABSTRACT: Introduction: False-positives can occur when a medication has a cross-reactivity with the immunoassay, often due to similarity in structure of the parent medication or one of its metabolites to the tested drug. The occurrence of false-positives is mostly affected by the type of immunoassay used and the particular agent being tested. We present a case of a 13 year old female who was status post overdose with lamotrigine with positive urine toxicology with PCP (Phencyclidine.)

CASE REPORT: Ms. A is a 13 year old female, with significant psychiatric history of Post-Traumatic Stress Disorder and Attention Deficit Hyperactivity Disorder. She denied any psychoactive substances of abuse including PCP. Her history was collaborated by her mother. History revealed that patient was found unresponsive in bed with a suicide note and bottles at her bedside with 13 of 100mg pills of lamotrigine missing and 13 of 50mg pills sertraline. She was brought to pediatric emergency room by ambulance activated by her mother. On arrival to the hospital, the patient was not verbally responsive; she was responsive only to tactile stimuli. Her vital signs were within normal limits. Her urine toxicology was positive for PCP. Her Basic Metabolic Panel, Liver Function Test, and Complete Blood Count were within normal. She was stabilized after two days and was transferred to child and adolescent psychiatry unit for continued treatment. She was treated with Zoloft 100mg daily, Seroquel 150mg daily, and Valproic Acid of 750mg po total daily dose (blood level 68.1 µg/mL) with good effects on her impulse control and mood lability.

DISCUSSION: The literature describes that lamotrigine can cause false positive urine toxicology for PCP. In Our case report, our patient denied any history of substance abuse and it was known that she overdosed on lamotrigine. Although a repeat urine toxicology was not done because of patient refusal to cooperate at that time, the suspicion that the positive urine toxicology for PCP was most likely from medication cross reactivity in a patient who has no clinical history of PCP use.

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Eye've Seen Enough: Oculogyric Crisis in a 13 year old Male Treated for Comorbid ADHD and Psychosis After Stopping Lisdexamphetamine

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ABSTRACT: Title: Eye've Seen Enough: Oculogyric Crisis in a 13 year old Male Treated for Comorbid ADHD and Psychosis After Stopping Lisdexamphetamine

BACKGROUND: Oculogyric crisis is a dystonic movement disorder caused by sustained contractions of ocular muscles that may last minutes to hours. It is known to occur during hypodopaminergic states. Combined use of stimulants and antipsychotics increase the risk for developing a hypodopaminergic state in the brain leading to various dystonic reactions described as a stimulant-antipsychotic syndrome (SAS).

CASE: A unique example of SAS occurred in a 13 year-old male with comorbid ADHD and schizoaffective disorder hospitalized for acute psychotic decompensation who had been treated for several months with risperidone and lisdexamphetamine. On admission, the patient had received olanzapine 5mg ODT for acute agitation and lisdexamphetamine was discontinued. He started to cross-taper from risperidone to quetiapine. In this setting he developed dystonia including an oculogyric crisis that resolved with diphenhydramine.

CONCLUSIONS: In this case the use of lisdexamphetamine and risperidone may have set up an environment where there was decreased endogenously made dopamine and up-regulation of postsynaptic dopamine receptors. Upon discontinuation of the lisdexamphetamine and acute use of additional atypical antipsychotics (olanzapine and quetiapine), the body experienced a hypodopaminergic state resulting in dystonic reactions that included an oculogyric crisis. This case is unique from previously reported cases by occurring with the use and discontinuation of lisdexamphetamine while most reported cases involved a derivative of methylphenidate as the stimulant. This report adds to the literature showing the importance of monitoring and being aware of potential medication

interactions especially when treating for comorbid conditions. This is even more important to recognize after adding or removing either of these medications.

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