

PRISON BREAK (A case of metformin toxicity in a prisoner)

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INTRODUCTION:

Metformin toxicity can occur among prisoners due to various reasons including suicidal attempt.

CASE DESCRIPTION:

We present a case of a 43 years old Pakistani male prisoner with underlying diabetes mellitus. He was on Tablet Metformin 1g BD. The prison officer said that patient took overdose medication after breakfast at 7am. From further history from prison's Medical Officer said that he took T Metformin however unsure amount. He was allegedly hidden the tablets under his tongue before able to accumulate large amount of metformin. 3 hours later patient start to feel dizziness. However, deny having fitting or noisy breathing.

Upon arrival, respiratory rate was 16 breaths per minute (bpm) and oxygen saturation 98% on room air. Heart rate was 105 bpm with a blood pressure of 118/81 mm Hg. His glucose level noted was 17. Clinically, he was handcuffed, pupil 3mm reactive bilaterally, no facial asymmetry, and gag reflexes was presence.

His Glasgow Coma Scale (GCS) was E3V4M6. All other systems examination is unremarkable. After 4 hours of observation, noted his GCS was E3V3M5. Blood pressure recorded 209/117, with heart rate, 76 bpm. He was sent for Computed Tomographic (CT) Scan of brain with no evidence of acute vascular event. All blood parameters were normal except blood gases that has significant changes from pH 7.326

to 7.256 and HCO₃ from 18.4 to 19.2. He was then admitted for further observation due metabolic acidosis which was consistent with findings for metformin overdose.

DISCUSSION:

Metformin is an insulin sensitizer. It increases glucose uptake and use by target tissues. Increasing availability of metformin make it susceptible for intentional ingestion among prisoners. Adverse effects of metformin include diarrhoea, and vomiting. The dosage is unknown to precipitate lactic acidosis in normal individual. In our case, despite ingestion of large amount of metformin, all investigations were normal for 7 hours before metabolic acidosis develops. This shows that the patient with metformin toxicity could be asymptomatic for few hours.

CONCLUSION:

There is no timeframe for metabolic acidosis to develop after metformin toxicity. Prolonged observation required before patient can be discharged.

KEYWORDS: diabetes mellitus, metformin toxicity, lactic acidosis.