

Acute kidney injury due to diphenhydramine induced rhabdomyolysis

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Rhabdomyolysis is a syndrome characterized by muscle destruction and release of intracellular muscle components into circulation, which can lead to acute kidney injury. Herein, we introduce a case of diphenhydramine induced rhabdomyolysis. A 50-year-old man was brought to our emergency room with snake bites. Mental status was alert and orientation was appropriate. He had no underlying disease, and vital signs showed a temperature of 37.8°C, blood pressure 129/92mmHg, heart rate 91/min, oxygen saturation 97% on room air. There was no snake bite wound in his body. His laboratory studies showed leukocytosis of WBC 22600/mm³, elevated Cr(3.86mg/dL), elevated potassium(5.3mMol/L), elevated creatine kinase(193460U/L), elevated myoglobin(>150000ng/mL). His urine was dark brownish color, positive for blood, and heme-negative. The urine toxic drug panel was negative for acetaminophen, amphetamine, benzodiazepine, cocaine, opiates. These findings suggested rhabdomyolysis with AKI. After arrival, his urine output was 5ml for 5 hours, and hyperkalemia got worse to 6.8mMol/L despite of enough hydration and potassium lowering agent. He underwent hemodialysis for hyperkalemia. After admission to intensive care unit, he confessed of suicidal attempt taking 60 tablets(3000mg) of diphenhydramine, which led to rhabdomyolysis and snake hallucination. Undergoing hemodialysis, creatine kinase decreased to 1880U/L, but his renal function was not recovered yet. He has no urine output, and still taking hemodialysis on Hospital Day 8. Although there have been some case reports of diphenhydramine induced rhabdomyolysis before, this might be the first case that required hemodialysis. The mechanism and dose-response relationship of diphenhydramine induced rhabdomyolysis is not well studied. Since diphenhydramine is over-the-counter drug that people can easily take as sleeping pill, we should always think of rhabdomyolysis and need of hemodialysis in diphenhydramine overdose patients.

	HOD#1	HOD#3	HOD#5	HOD#7
BUN(mg/dL)	35.9	44.7	27.1	38.6
Creatine(mg/dL)	3.86	5.67	5.31	9.04

