

Intravascular Hemolysis and Acute Renal Failure Following Hair Dye (Para-Phenylenediamine) Poisoning

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Introduction : Hair dye poisoning can cause severe angioedema , rhabdomyolysis, intravascular hemolysis and acute renal failure We are reporting a case of intravascular hemolysis leading to acute renal failure following hair dye (para-phenylenediamine) poisoning. **Case report** : A twenty eight year old male was brought to the emergency in altered sensorium. He had been ill for only about six hours with vomiting, severe pain in all limbs with weakness, and the patient had slipped into altered sensorium about an hour before reaching the hospital. The altered sensorium was gradual in onset, was not preceded by any seizure. On examination, he was afebrile, stuporose, hemodynamically stable, pupils were equal, normal size and reacting to light, there was no neck stiffness. He was moving all four limbs, deep tendon reflexes were elicitable. Cardiovascular, respiratory and abdominal examinations were normal. The urine was cola colored. On probing further, it was admitted that the patient had consumed a hair dye named vasmol (para- phenylenediamine). His hemoglobin was 15.6 gm/dl, TLC 20,000/mm³ . Serum creatinine 1.1 mg/dl, total bilirubin 2.8 mg/dl, conjugated bilirubin 1.4 mg/dl, AST 135(IU), ALT 119(IU), alkaline phosphatase 10, plasma hemoglobin level 141 mg/dl, urine hemoglobin level 29 mg/dl. Patient's hemoglobin dropped, he developed anuria, his serum creatinine rose to 9.0 mg/dl a day later. He received hemodialysis that day and another session one day later. His urine output improved after three days to one liter per day. He was in normal sensorium. Patient was discharged after being in hospital for four days with advice to follow up closely until his serum creatinine normalized. **Discussion** : The reported manifestations of hair dye poisoning are acute severe angioedema, rhabdomyolysis, intravascular hemolysis and acute renal failure. Our patient did not have angioedema, had latter two complications. Urine for myoglobin could not be done due to technical reasons but elevated AST,ALT levels were suggestive of muscle injury. He made a good recovery in about four days. He received supportive treatment for his renal dysfunction. No specific antidote is available for the treatment of this poisoning. Treatment is basically supportive. Short term hemodialysis would be necessary for acute renal failure.