Absence of anion gap metabolic acidosis in severe methanol poisoning: a case report and review of the literature.

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Methanol poisoning in humans is characterized by a latent period with subsequent development of anion gap metabolic acidosis and blindness. We describe a patient with potentially lethal methanol ingestion as evidenced by an admission serum methanol level of 403 mg/dL and sustained serum methanol levels greater than 50 mg/dL for more than 18 hours after ingestion, despite hemodialysis therapy. That anion gap metabolic acidosis or visual impairment did not develop in this patient was attributed to documented prior ethanol ingestion (admission serum ethanol level of 158 mg/dL) and continued ethanol administration during hospitalization (sustained serum ethanol levels greater than 100 mg/dL). This case demonstrates the ability of ethanol to inhibit the metabolism of methanol to formic acid in humans. This inhibition was achieved without induction of lactic acidosis. Thus this case documents the efficacy of ethanol therapy in patients with methanol poisoning.

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