
Re: Ethylene Glycol Ingestion Treated Only With Fomepizole (Journal of Medical Toxicology: Volume 3, Number 3, September 2007; 125–128)

Velez et al's recent case report [1], describing the efficacy of fomepizole as the sole antidotal therapy for ethylene glycol toxicity, is pertinent to the practice of medical toxicology as there is now a mounting body of evidence highlighting the value of this treatment approach. Hemodialysis is not a benign procedure; hypotension, the most worrisome acute complication, is cited to occur in 25–55% of treatments [2]. Furthermore, the overall cost-effectiveness must be considered when taking into account resource utilization. In a case report by Boyer et al [3], the cost of using fomepizole as a single therapy was compared against that of hemodialysis, with a 65% increased cost associated with the latter modality. When hemodialysis is used as the primary therapy, these patients concomitantly receive fomepizole at four-hour dosing intervals instead of every twelve hours; the antidote itself is also eliminated by dialysis, further increasing the financial burden.

Our toxicology consult service recently cared for a 45-year-old female whose initial ethylene glycol level was 444 mg/dL; she was also successfully treated with fomepizole alone without concomitant use of hemodialysis. Adjunctive therapy included thiamine, folic acid and pyridoxine. Her renal function and acid-base status remained normal throughout her hospital stay. Our case represents the 3rd highest serum ethylene glycol concentration reported in the literature that was treated without hemodialysis, mirroring that of Velaz et al, as well as Aakervik et al [4], where the peak serum ethylene glycol concentrations were 706 mg/dl and 585 mg/dl, respectively. Our case further supports the use of fomepizole alone for severe ethylene glycol intoxication in cases where the acid-base status and renal function are normal; such an approach may obviate the need for hemodialysis, with its known complications, as well as mitigate the financial costs clearly associated with aggressive renal interventions [5].

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The authors do not have any conflicts of interest.
This data has not been presented elsewhere.

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