

## Authors' reply

Sir,

We reviewed the comments in the letter to editor and would like to thank the author for his interesting questions. The author's concern about the frequency of methemoglobinemia in acute aluminum phosphide (ALP) poisoning prompted us to search the Medline database using the terms "methemoglobinemia" and "aluminum phosphide and "poisoning" and found 4 papers in addition to our recent paper.<sup>[1-4]</sup> Of these publications, one was a study using rats and not in human,<sup>[1]</sup> 2 others were case reports,<sup>[2,3]</sup> and one was series of 48 human cases.<sup>[4]</sup> In the last paper,<sup>[4]</sup> in written by authors in our institution, most patients did not have an elevated MetHb, though there was an association between metHb concentration and death.

The role of potassium permanganate, in producing methemoglobinemia, is unclear, but toxicity due to an oral exposure generally occurs following ingestion of saturated solution of potassium permanganate and not the diluted solution (1:10000) that was used in decontamination of our patient.<sup>[3]</sup> As you know the potassium permanganate is poorly absorbed,<sup>[5,6]</sup> gastric decontamination with potassium permanganate solution 1:10000 is highly unlikely to be a principal cause of methemoglobinemia unresponsive to the treatment.

The authors declare that they have no competing interests and source(s) of support.

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## References

1. Lall SB, Peshin SS, Mitra S. Methemoglobinemia in aluminium phosphide poisoning in rats. *Indian J Exp Biol* 2000;38:95-7.
2. Lakshmi B. Methemoglobinemia with aluminum phosphide poisoning. *Am J Emerg Med* 2002;20:130-2.
3. Shadnia S, Soltaninejad K, Hassanian-Moghadam H, Sadeghi A, Rahimzadeh H, Zamani N, *et al.* Methemoglobinemia in aluminum phosphide poisoning. *Hum Exp Toxicol* 2011;30:250-3.
4. Mostafazadeh B, Pajoumand A, Farzaneh E, Aghabiklooei A, RasouliMR. Blood levels of methemoglobin in patients with aluminum phosphide poisoning and its correlation with patient's outcome. *J Med*

*Toxicol* 2011;7:40-3.

5. Mahomedy MC, Mahomedy YH, Canham PA, Downing JW, JealDE. Methaemoglobinaemia following treatment dispensed by witeh doctors. Two cases of potassium permanganate poisoning. *Anaesthesia* 1975;30:190-3.
6. Ong KL, Tan TH, Cheung WL. Potassium permanganate poisoning-a rare cause of fatal self poisoning. *J Accid Emerg Med* 1997;14:43-5.

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