

Sophism in the Management of Acute Aluminum Phosphide Poisoning may Cause Patient Harm

Sir,

In December 2016, the Indian Journal of Critical Care Medicine published our review article on the current management of acute aluminum phosphide toxicity, as well as our new proposals for therapy.^[1] One month later, in the first issue of 2017, Hassanian-Moghaddam and Zamani raised some concerns in the review.^[2] We appreciate their interest in our article and would like to address the concerns.

- In that review, we referred to a study, that reported conversion of oxyhemoglobin to methemoglobin after incubation of rat erythrocytes with phosphine.^[1,3] However, their letter referred to another study that used a co-oximeter to confirm methemoglobinemia and claimed “this could be a dyshemoglobin falsely positive for methemoglobin” and cite two of their previous publications, which were not germane to the issue^[2]
- Interestingly, it seems that the authors seem to emphasize the outdated practice to washout phosphine using water soluble compounds. In fact, gastric ventilation, another approach proposed by the same authors, only assist in emitting phosphine gas produced by their conventional gastric decontamination methods.^[2] As we explained in our review, using charcoal, or potassium permanganate, is not efficacious considering their chemical properties.^[1,4,5] Another experiment by Sanaei-Zadeh and Marashi recently showed castor oil can effectively protect phosphine liberation from aluminum phosphide pellets^[6]
- We believe that all efforts should be focused on resuscitation of refractory hypotension. Hence, we accept that if the patient’s systemic perfusion does not improve using our new proposals, administrating glucose/insulin/potassium could be helpful.

Lastly, we think acute aluminum phosphide poisoning is not an irremediable situation, but sophism in its management may cause patient harm. According to our previous experience, it seems that following the new proposals for therapy can improve survival. However, without a randomized controlled trial, everything is just a “claim.”

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Conflicts of interest

There are no conflicts of interest.

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