

RE: Successful management of zinc phosphide poisoning

Sir,

We read with great interest the case report presented by Shakoori *et al.* published in your journal.^[1] They have reported an 18-year-old patient referring almost 5 h after the ingestion of 20 g of zinc phosphide. Abdominal X-ray showed radiopaque densities throughout the luminal tract which was tried to be treated by the administration of oral castor oil. In the next X-ray, although the patient had defecated, the radiopaque material was still detected in the splenic flexure. In the final X-ray, no radiopaque material was observed, but the patient started to become symptomatic, first by a light metabolic acidosis and second by increasing liver function tests and international normalized ratio.

The authors suggest that the innovative method of treatment in their center is better than the polyethylene glycol (PEG) recommended by other authors^[2] because PEG has a water base and can reduce PH_{4+} to PH_3 and cause profound intoxication. As pointed out by the authors, there is more time in Zinc phosphide poisoning as compared to Aluminum phosphide, although when complications set in deterioration occurs rapidly.^[3] Therefore, the mainstay of therapy is to clear the patient's intestines before even the first signs and symptoms of toxicity develop. This is why we had previously suggested PEG and preferred it to the routine cathartics. With the intensive irrigation of the gastrointestinal (GI) tract (1–2 L/h), PEG decontaminates the GI tract faster than the routine cathartics such as castor oil. We believe that this is the reason why their patient has been receiving castor oil for almost 12 h and finally developed the signs and symptoms of toxicity. In fact, even theoretically administration of PEG deteriorates the patient; in the actual setting, PEG decontaminates the GI tract faster

and prevents the development of clinical toxicity more efficiently.

On the other hand, ALP is fumigant in nature; case reports exist that describe fatal unintentional poisonings due to inhalational exposure to it in a rather long period. This challenges the authors' proposed mechanism of phosphine action in zinc versus aluminum phosphide.^[4] By the way, our goal seems to be the rapid evacuation of phosphine or its sources, even by gastric ventilation.^[5]

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Conflicts of interest

There are no conflicts of interest.

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