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Blood exchange as a potential treatment in aluminum phosphide poisoning

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Objectives: Aluminum phosphide (ALP) poisoning is the number one cause of death due to pesticides in some Asian countries and in Iran since the previous decade [1, 2]. Although mostly fatal, there is no antidote available for the toxicity and the death rate due to ALP poisoning has been reported to be as high as 70% [3]. Some authors suggested that blood exchange might have a role in treatment of ALP poisoning [4].

Case report: A 37-year-old male referred almost one hour after deliberate ingestion of two 3-g ALP tablets. Three hours after admission, his blood pressure decreased to 85/55 mmHg, his pulse rate increased to 120 bpm, and O_2 saturation dropped to 82% with no response to conventional treatments. Electrocardiogram showed junctional rhythm. Whole blood exchange was initiated with consequent gross hematuria and icterus. His blood pressure increased, the arrhythmia resolved and he could be extubated two days after exchange was terminated. He was sent home seven days after admission.

Conclusion: We believe this treatment modality may be successfully applied with precaution in ALP-poisoned patients.

References:

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