Aluminum phosphide poisoning and development of hemolysis and methemoglobinemia

Sir,

I read with interest a case, presenting with hemolysis and methemoglobinemia associated with aluminum phosphide (ALP) poisoning presented by Soltaninejad and colleagues, published in your journal.[1] Two major points should not be missed about this case; firstly, although the authors have stated that methemoglobinemia is a rare finding following ALP poisoning, it seems that in all patients with this poisoning, methemoglobinemia is present to some degrees.[2-6] Therefore, it should be emphasized that symptomatic methemoglobinemia-but not methemoglobinemia itself- is a rare finding in this setting. Secondly, in a previously performed study on two patients, presented by two authors of this same article, it has been stated that the ALP-poisoned patients with hemolysis and methemoglobinemia seem to be resistant to methylene blue and ascorbic acid,[4] while in the current case report, they have suggested that they may play a role in the successful management of these patients. The authors hypothesize that this difference in response to therapy may be due to the severity of toxicity, inappropriate dose of methylene blue, and the physiological differences between the patients.[1] The point they may have missed is gastric lavage with potassium permanganate. As you know, potassium permanganate is a strong hemolytic and oxidizing agent that can induce hemolysis and methemoglobinemia. [6-8] Therefore, lavage by the recommended concentration (1:10,000) of this agent may not only cause methemoglobinemia and hemolysis, but also it may cause methemoglobinemia unresponsive to the treatment. This needs further considerations in the future studies. Thanks for this interesting case.

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