Letters to the Editor

Celphos Poisoning

Ahmad *et al.* have mentioned that magnesium sulphate was used as an antidote in Celphos (Aluminium phosphate) poisoning(1). However, a review of the literature on this subject states that there is no antidote against Aluminium phosphide(ALP) poisoning(2). A few reports have observed low serum magnesium levels and have used magnesium sulphate with limited success in ALP poisoning but so far there is no conclusive evidence to prove the role of magnesium sulphate(3). On the other hand, in an another study, statistically significant raised serum magnesium levels in ALP poisoning have been reported(4). We would like to know the authors' view about the concept of magnesium sulphate as antidotes.

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Reply

We are in full agreement that there is no specific antidote for Aluminium phosphide (ALP) poisoning. Magnesium is known for its membrane stabilizing effect in cardiac cells(1). This property has been utilized to treat cardiac arrhythmias even in normomagnesemic patients in the past. Both *in vitro* and *in vivo* data support the hypothesis that magnesium supplementation can suppress myocardial irritability and tachyarrhythmias(2,4). Since ALP is known to produce myocardial toxicity and arrhythmias, magnesium sulphate has been used to treat this poisoning in a few cases with some success. In fact in one study carried out by Jain *et al.*(5), the success rate was very high. It has proved beneficial in preventing cardiac arrhythmias following ALP intoxication in experimental animals(6). We, therefore, used magnesium sulphate as a non-specific antidote to counter the cardiac toxicity in ALP poisoning. This may perhaps bring down the mortality in such cases.

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