

## البحث الرابع

### **Outcome of Toxicity and Mortality Predictors of Aluminum Phosphide Poisoning In Fayoum Governorate, Egypt**

**Authors:** Amro A. Saleh and Mohammed G. Makhlof

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#### **Abstract**

**Background:** Aluminum Phosphide (Celphos) is ideal solid pesticide as it is cheap, effective and easy to use, in the form of chalky white or brown tablets. It is sold in the Egyptian market under the name of Celphos 57 % in the form of tablets. Phosphine has direct toxic effect on the myocardium via inhibition of cytochrome oxidase, which leads to intensive cellular damage and hence cell death.

**Aim of the work:** is to assess aluminum phosphide toxicity in patients admitted in Fayoum general hospital, regarding their frequency, predictors of severity and the outcome of toxicity.

**Methodology:** This study was carried out on 60 patients admitted at Fayoum General Hospital during the period from May 2015 to April 2017. All subjects were examined for: **I)** sociodemographic data **II)** medical evaluation **III)** Investigation: Including arterial blood gases, Serum electrolytes (Na and K), random blood sugar and Electrocardiography (ECG) monitoring **IV)** Outcome: include survived and non-survived patients.

**Results:** 60 patients were enrolled in the study, 49 were males and 11 females. The commonest symptoms were hypotension, cardiogenic shock and palpitation which presented as 83%, 80% and 70% respectively. 10% of patients had normal ECG while 90% had abnormal ECG findings. Metabolic acidosis was detected in 72% of patients. It was found that sinus tachycardia and ventricular fibrillation was statistically significant (P-value < 0.05) with ABG analysis. Mode of poisoning was statistically significant with both hypotension & palpitation, also with the outcome of poisoning, presence of cardiogenic shock and ABG analysis. This study revealed significant difference (P-value < 0.05) between mode of poisoning, cardiogenic shock and delay time of poisoning with the outcome of toxicity. Mortality rate was 92% and ECG dysrhythmia, metabolic acidosis and cardiogenic shock were good prognostic criteria for mortality.