



ایران پزشکی قانونی بین المللی دومین کنفرانس سالیان

کتاب خلاصه مقالات



دانشگاه علوم پزشکی تهران



جمهوری اسلامی ایران



جمهوری اسلامی ایران



دانشگاه علوم پزشکی اراک



دانشگاه علوم پزشکی اصفهان



دانشگاه علوم پزشکی شیراز



دانشگاه علوم پزشکی مشهد



Blood levels of methemoglobin in patients with aluminum phosphide poisoning and its correlation with patient's outcome

Mostafazadeh Babak, MD¹, Esmaeil Farzaneh MD², Abbas Aghabiklooei²

- 1.
2. 1- Loghman Hakim Poison Hospital, Shaheed Beheshty Medical University, Tehran, Iran.
3. Ardabil Medical University, Ardabil, Iran.
4. 2- Department of Medical Toxicology & Forensic Medicine, Tehran University of Medical Sciences.

Background: Although methemoglobinemia following aluminum phosphide (AIP) intoxication has been reported, probable effect of blood level of methemoglobin (Met-Hb) on outcome of AIP poisoned patients has not yet been investigated. This study aimed to evaluate blood levels of methemoglobin in patients with AP intoxication and its correlation with patient's outcome. Methods: This prospective study was carried out at the Loghman-Hakim poison hospital from April 2009 to August 2009. All patients aged >12 years who had ingested AIP and were admitted at the hospital were enrolled in the study. Using the co-oximetry, blood Met-Hb level was measured at the time of admission and 24 hours later if the patient survived.

Results: 48 patients with AIP intoxication including 24 males were evaluated. Mean age of the patients was 25.5 ± 9.5 years. There was significant association between blood level of Met-Hb at the time of admission and mortality ($2.4\% \pm 7.1\%$ in survivors versus $15.2\% \pm 13.5\%$ in non-survivors, $P < 0.001$). The same association was found at the 2nd day of admission ($2.9\% \pm 8.2\%$ in survivors versus $26.5\% \pm 19.9\%$ in non-survivors, $P = 0.02$).

Conclusion: The present study found an association between blood level of Met-Hb and mortality in patients with AIP intoxication. Effect of administration of vitamin C and methylene blue on outcome of patients with AIP intoxication should be investigated in future studies.