

Oral Presentation - 27

Impact of Gastric Lavage on the Outcome of Cholinergic Insecticide Poisoning – A Prospective Observational Cohort Study

M A Andrews¹, M Indira¹, T P Rakesh¹, T S Hitheshsanker²

¹Department of Medicine, GMC, Thrissur, Kerala, India,

²Department of Forensic Medicine, GMC, Thrissur, Kerala, India

Abstract

Objectives: Role of gastric lavage (GL) in acute poisoning is not well defined. We aimed to assess the effect of GL in cholinergic insecticide poisoning

Method: Patients admitted in a tertiary care centre between January 2011 and December 2012 with cholinergic insecticide poisoning receiving standard care were followed up till death or recovery. After stabilization of clinical status, GL was done, irrespective of whether it was received from elsewhere. The lavage was performed through orogastric or nasogastric tube with aliquots of 300ml tap water till aspirate was clear.

Results: Of 254 patients (183 males and 71 females) assessed, the mean age of the deceased was higher compared to survivors (49.3±13.4 and 39.7±14.7, RR - 2.8, 95% CI 1.8-4.2). 113 patients were exposed to carbamates, 94 to organophosphorus and 47 to unidentified compounds. The mean time from poisoning to GL was 3.38±3.65 hr in the deceased and 3.05±3.5 in survivors. Overall mortality was 31.5% (n=80). Respiratory failure occurred in 36.6% (n=93) and was strongly associated with mortality (n=76/80, RR-32.9, 95% CI 12.4-87). Intermediate syndrome (IMS) occurred in 16.1% (n=41) and late respiratory failure due to IMS in 38.7% (n=36/93) and was found to be lower in those who received multiple GL (RR 0.43, 95%CI 0.23-0.82, p= 0.007). Timing or number of GL did not show any relationship to early respiratory failure, duration of ventilatory support, overall mortality, mortality secondary to early (within 24 hours) or late respiratory failure. After analyzing clinical and post-mortem findings 32 deaths (40%) could be attributable to pneumonia, 26 (32.5%) to arrhythmias with sudden cardiac arrest and 22 (27.5%) to inadequate respiratory support. Evidence of poison in stomach was seen in 32 (40%) patients. Median survival was 24 hours (range 30mts to 6 days) and 48 hours (1hour to 11 days) respectively for patients with and without evidence of poison inside the stomach on autopsy. Timing or the number of GL performed didn't show any correlation with the presence of poison in stomach.

Conclusions: Though overall outcome remained unchanged, multiple GL significantly reduced the incidence of IMS and late respiratory failure. Presence of poison in stomach in several patients even after 24 hours of consumption points towards theoretical benefit of GL. Properly done GL is a simple and cheap procedure and should not be discouraged in cholinergic insecticide poisoning.