

Carbon Monoxide Poisoning in Tehran: A 5 years survey

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Abstract

Objective: To find out epidemiological trend & analytical findings of carbon monoxide (CO) poisoning in a referral toxicology center in Tehran-Iran.

Methods: Chart review of hospitalized pure CO poisoning in 5 consecutive years.(2007-2011). Statistical analysis applied to find correlation between worth outcome (Death & CNS sequale) and independent variables.

Results: A total of 283 patients including 58 males (55.8%) with mean age of 25±19 year (range 1-87) were hospitalized mainly in cold months [November-March, 238 cases (84.1%)]. There were 211 cases who accompanied the patients at the same intoxication place. Of whom 202 (95.7%) cases intoxicated and 25 (11.8%) died.

The most common place of intoxication was home with 205 cases (77.7%), mostly by gas heaters, in 39 case (14.8%), ignoring undefined appliances (40.6%).

Decresed level of consiousness was the most common presentasion (47.3%). Of whom 14 cases admitted in deep coma state. Intubation was done in 30 cases (13.7%) that needed intensive care managment. Headache and/or vertigo was happened in 84 cases (29.3%). The median (IQR) lenght of stay was 2(1-2) days, (range 1-73).

Of 41 brain CT scan 17 cases (7.4%) had pathologic findings which was correlated with worth outcome (p=0.001). Of acid-base disturbances, respiratory & metabolic acidosis was the most dominant abnormalities [13 cases each one (12.5%)].

There was a significant correlation between worth outcome and level of pottasium, urea, creatinin, ALT and hemoglobin (p<0.001, p=0.006, p<0.001, p<0.001, p=0.003 respectively).

Risk of mortality was higher in those patients who lost their roommate due to CO toxicity in recent accident (OR=11.1, %95 CI 3.1, 31.7)

Conclusions: In conclusion, the NLRP3 inflammasome is required for paraquat-induced acute lung injury and the NLRP3 inflammasome inhibition can partially protect the lung against inflammatory injury induced by PQ in rats.

