

Oral Abstracts

10B-04

THE RECOVERY RATE OF CARDIAC ENZYME & SYSTOLIC DYSFUNCTION AFTER HYPERBARIC OXYGEN THERAPY IN SEVERE CO INTOXICATION

Hyun Kim, M.D., Ph.D.¹, Yong Sung Cha, M.D.¹, Sung Oh Hwang, M.D., Ph.D.¹, Jang Young Kim, M.D., Ph.D.²

Department of Emergency Medicine¹ and Department of Cardiology², Yonsei University Wonju College of Medicine

Objectives: This study was to investigate the recovery rate of cardiac enzyme, systolic dysfunction and the clinical characteristics of CO-induced cardiomyopathy after hyperbaric oxygen therapy in severe CO intoxication in South Korea.

Methods: We conducted a retrospective and observational study of 43 patients (male 27, mean age 60 years) who came to the emergency department with severe CO intoxication during the period August 2013 and May 2014. Measurements of troponin-I, left ventricular ejection fraction and wall motion abnormalities were performed to evaluate cardiac function and measured cardiac function at the time of initial, day 1, day 2, and once within seven days of hospitalization. Patients were divided into two group: hyperbaric oxygen therapy (HBO) group (n=33), and non-hyperbaric oxygen therapy (non-HBO) group (n=10).

Results: The incidence of cardiomyopathy was as high as 74.4% (32 of 43 patients) in CO-poisoned patients with myocardial injury based on initial ED results. The recovery rate of troponin-I within 72 hours was higher with the HBO than the non-HBO group (24.24% vs 0%, p=0.04). The recovery rate of systolic dysfunction within 72 hours was not differed between two group (50.0% vs 45.45%, p=0.72).

Conclusion: The recovery rate of cardiac enzyme was faster after hyperbaric oxygen therapy with severe CO poisoning and myocardial injury patients.