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Correspondence

Survival following extreme carboxyhemoglobin elevation

To the Editor,

I read with great interest the article by Kaya and co-workers, “Carboxyhemoglobin levels predict the long-term development of acute myocardial infarction in carbon monoxide poisoning” [1]. They observed that 100 of 1013 consecutive patients presenting to their emergency department in Turkey with carbon monoxide (CO) poisoning experienced acute myocardial infarction (AMI) during an average follow-up of fifty-six months after the event. While I am unable to explain their observation, I was struck by the degree of carboxyhemoglobin (COHb) elevation described in their patients. The mean COHb level in the group with AMI was $55 \pm 6\%$. It is quite unusual to see a level greater than 55% in clinical practice. Of 1915 CO-poisoned patients treated with hyperbaric oxygen in the US and reported in a recent 3-year national surveillance project [2], only five had COHb levels greater than 55%.

I personally contacted Dr. Kaya and was kindly allowed to review some of their data. Of the 100 patients with AMI, 51 (5% of their study population) had COHb levels over 55%. Even more interesting is the fact that three of their patients had levels greater than 70%. To my knowledge, no patient has been reported in the English language medical literature that survived with a measured COHb level greater than

70%. According to Dr. Kaya, three patients with COHb levels of 71%, 71%, and 73% survived 56, 56, and 62 months, respectively. The epidemiology of CO poisoning in their region clearly warrants further study.

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