Letter to Editor

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# Broadening the Diagnostic Horizon in Carbon Monoxide Poisoning: Reflections on Tp-e/QTc and Lactate as Early Markers

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## Dear Editor,

We came across the recent case report by Bozatlı et al., titled *"Can Tp-e/QTc Ratio and Blood Lactate Levels Serve as an Earlier Indicator Than Troponin for Detecting Cardiac Ischemia in Patients with Carbon Monoxide Poisoning in the Emergency Department?"* with genuine interest.[1] As clinicians frequently face diagnostic uncertainties in emergency settings, particularly in toxicology-related cardiac events, we found the topic highly relevant and thought-provoking.

The authors deserve credit for highlighting the potential role of the Tp-e/QTc ratio and lactate levels in early cardiac ischemia detection especially considering how standard markers like troponins can be delayed in response. Despite similar CO exposure, the contrast between the two presented cases offers a compelling example of clinical variability and the need for broader diagnostic tools. We believe there is room to enrich this valuable report further. For example, many clinicians may be unfamiliar with the Tp-e/QTc ratio. It would be helpful if the article briefly discussed its physiological basis particularly its relationship with ventricular repolarization and arrhythmic risk.[2-4] Also, including known threshold values or reference ranges could make the findings more actionable for frontline practitioners.[5] Another point to consider is that, in the absence of imaging (e.g., echocardiography or cardiac MRI), it can be challenging to correlate the ECG and biochemical findings with actual myocardial damage. This does not detract from the report's value, but noting this limitation openly might help set the right expectations for readers. Likewise, even briefly mentioning the patients' outcomes such as recovery course, complications, or follow-up results could add important context. We also understand that case reports are meant to open doors rather than close them. In this sense, the authors have laid a strong foundation. However, it would be exciting to see these parameters tested in larger, prospective studies where their predictive value can be better understood.[6-8]

In summary, this is a timely and well-crafted contribution that draws attention to a frequently overlooked aspect of emergency cardiotoxicology. We commend the authors and

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the editorial team for spotlighting this important area of clinical inquiry.

Sincerely.

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