Electrocardiographic manifestations in acute methanol poisoning

The article by Jaff et al. [1], which has recently been published in “Cardiology Journal”, drew my immediate attention and I admit that I read it with great interest. The authors state that currently there are limited data on the electrocardiographic (ECG) manifestations associated with methanol intoxication. Interestingly, they have missed our study that had previously been published in the literature [2]. Therefore, I would like to present the results of our study that may be interesting for the readers. In a retrospective study on 42 methanol-intoxicated patients, we found that 83% of them had ECG abnormalities on admission to hospital. In other words, ECG heart rate > 100 beat/min was detected in 18 patients, prolonged QTc interval in 25, PR interval > 200 ms in 1, QRS interval ≥ 120 ms in 1, atrial fibrillation in 2, flat T waves in leads I and/or II in 6, left atrial enlargement in 2, left ventricular strain pattern in 3, right atrial enlargement in 1, and right ventricular strain pattern in 10 patients. Three patients had concomitant right and left ventricular strain patterns. In addition, we recorded right axis deviation of > 110° in 1 patient, early repolarization in 4, right bundle branch block in 2, premature atrial contractions in 1, premature ventricular contractions in 3, and ST depression in leads II, III, and VF in 1 patient [2]. Furthermore, no significant differences were found between the survivors and non-survivors in ECG abnormalities. Our findings differed from earlier reports in some of the abnormalities [3, 4]. For instance, our results suggested that methanol-induced cardiotoxicity was not exclusive to the right heart. It should be mentioned that in contrast to Jaff’s suggestion [1], we did not find a statistically significant relationship between acidosis and ECG abnormalities.

Conflict of interest: None declared

References


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