

LETTER TO THE EDITOR

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SARS-CoV-2 and electrocardiography: is electrocardiography a predictor of mortality?

We have read with great interest the article by Lanza *et al.* named 'Electrocardiographic findings at presentation and clinical outcome in patients with SARS-CoV-2 infection'.¹ In this issue, We want to underline few issues that need careful consideration.

In patients with SARS-CoV-2 infection, mortality rates remains higher compared to seasonal flu or others. In this study, electrocardiographic abnormalities were associated with mortality. However, in electrocardiographic evaluation, there are a number of factors affecting the cardiac conduction system. First, the effects of medical drugs such as hydroxychloroquine or azithromycin, which are clearly known to have effects on

QT and which are widely used at the beginning of the COVID-19 pandemic, have been neglected. Among the patients, there may be those who have previously been diagnosed with COVID-19 infection and have worsened by receiving these outpatient medical treatments.

Second, patients' electrolyte disturbances were not evaluated in the study. The fact that 44 patients with many chronic diseases and concurrent drug use, especially chronic kidney diseases with higher mean creatinine levels can affect the electrolytes such as potassium or magnesium or calcium and also morphology and duration of QRS. Additionally, these may include chronic heart disease and medical treatments with direct electrocardiogram (ECG) effects, such as antiarrhythmic or beta-blockers or calcium channel blockers.

Third, left bundle branch block was observed in only 4 patients out of 44 patients. Unfortunately, this particular inference is closer to a speculative statement about a four-fold increase in death.

In another case, the association of mortality with only electrical conduction system abnormal-

ity without echocardiographic examination of patients and a basic evaluation such as ejection fraction is an incomplete aspect. Apart from that, the fact that deaths were not associated with cardiac death contributes to the study being a superficial evaluation.

Given these circumstances, the association of the ECG interpreted in this study with mortality in SARS-CoV-2 infection is doubtful.

Conflict of interest: none declared.

References

1. Lanza GA, De Vita A, Ravenna SE, D'Aiello A, Covino M, Franceschi F *et al.* Electrocardiographic findings at presentation and clinical outcome in patients with SARS-CoV-2 infection. *Europace* 2020;**23**:123–9.

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