

EVALUATION OF INDEX OF CARDIO-ELECTROPHYSIOLOGICAL BALANCE AND TP-E/QT RATIO IN COVID-19 PATIENTS TREATED WITH HYDROXYCHLOROQUINE AND AZITHROMYCIN

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Abstract

Aim: The common cardiac toxicities of hydroxychloroquine (HCQ) and azithromycin(AZ) are not well defined in COVID -19 patients . The purpose of this study was to evaluate ventricular repolarization in COVID-19 patients treated with HCQ and AZ using iCEB, Tp-e interval, Tp-e/QT ratio, and Tp-e/QTc ratio. **Methods:** This retrospective study enrolled 164 patients diagnosed with COVID-19 pneumonia in the Emergency Department (ED) and then transferred to the medical floor or ICU in April 2020 **Result:** A total of 164 patients were mean aged 47 ± 18 years (range, 18-97 years) and 83 (50.6%) were women in study population. Group HTQ had 38 patients , Group HTQ + AZ had 126 patients. On the 5th day of hospitalization heart rates (HR) were significantly lower than ED ($p<0,001$). On the 5th day of hospitalization QTc , QT max (V5-V6), QTmin, Tp-e (V5-V6) and iCEB values were significantly higher than ED ($p=0,01$ and all the rest $p<0,001$ respectively). On the 5th day of hospitalization iCEB values of HTZ+AZ group were statistically significant higher than iCEB values of HTQ group ($p=0,03$). iCEBc had strong correlation between Tp-e/QT (V5). iCEBc had strong negative correlation between Tp-e (V5). **Conclusion:** The iCEB values were significant increased after HTQ and AZ treatment in COVID-19 patients. We think that iCEB is a more sensitive marker than QT prolongation in predicting the risk of multi-drug arrhythmia.

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