The frequency of arrhythmia in patients with palpitations who had COVID-19 with 24-hour holter compared to the control group

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Proposition: In this study, we aimed to calculate an arrhythmia incidence, including parameters that have not been studied before, with 24-hour holter results between the COVID-19 survivors and the control group.

Method: The participants of the study were selected among the patients who applied to the Cardiology Department between March 2020 and March 2021 with the complaint of palpitation. From patients with 24-hour rhythm holter (approximately 1500 patients) retrospectively, patients who had COVID-19 at any time before holter insertion (n=190) were identified. The same number of patients (n=221) with similar characteristics were taken as the control group.

Results: The probability of having AF in the COVID-19 group was found to be 3.2 times higher (%95 CI, 1.002-10.48) than control group. There was no difference in the development of arrhythmia in patients who had COVID-19, when patients with CT involvement and patients without involvement were compared. In addition, there was no difference between having cardiac risk factors in terms of development of arrhythmia in both groups, even when looked at separately. Average rate was lower in serology positive group (p=0.04). Heart rate was lower in those who received favipiravir than those who received plaquenil or favipiravir plus plaquenil (p=0.03). Atrial extra systole incidence were higher in those who were taken plaquenil (p=0.48).

Conclusion: According to our knowledge, there is no other study investigating the effect of pharmacological treatment changes used in Covid-19 on arrhythmia frequency. Also CT involvement has no effect on the incidence of arrhythmia.

The main result is when multivariate regression analysis was performed, being COVID-19 was an independent indicator of the presence of atrial fibrillation (p=0.05).