



P wave and QT dispersion in pregnant women with Familial Mediterranean fever

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Objective

Familial Mediterranean Fever (FMF) is the most common hereditary monogenic auto-inflammatory disease. It is characterized by recurrent, self-limited episodes of fever and sterile inflammation of serous membranes. Pregnancy therefore acts as a medical stress test for the mother. This is particularly evident in women who conceive with chronic medical disorders. The limited reserves of an impaired organ will be unmasked and the organ fails to increase its function during pregnancy. One of the most important factors that contribute to increased cardiovascular risk appears to be systemic inflammation. Patients with inflammatory rheumatic diseases are now considered to have an increased risk of cardiovascular diseases. Despite its inflammatory nature there are conflicting results as to the association between FMF and increased risk for cardiovascular diseases. It has been never investigated before, any ECG or echocardiographic changes in pregnant with FMF. In this study, we aimed to evaluate of electrical conduction in pregnant women with and without FMF by using ECG and echocardiography.

Methods

The data of 35 pregnant with FMF and 38 healthy pregnant women all in the third trimester and matched for maternal and gestational ages were included the study. Electrocardiographic maximum (Pmax) and minimum (Pmin) P-wave durations and P-wave dispersion (Pd) parameters, QT interval durations and QT dispersion (QT-disp) parameters, corrected for the patients' heart rate using the Hodges formula were investigated.

Results

There were no differences in Pmax, Pmin, Pd, mean QTc interval and QTc-d values between the groups. Epicardial fat thickness values were significantly higher in the FMF group compared with the control group ($p=0.015$). There was a significant positive correlation between FMF duration and epicardial fat thickness ($p=0.042$).

Conclusion

In this study, we demonstrated, for the first time in the literature, P-d and QTc-d values were not altered, pregnant women with FMF compared with healthy pregnant women. We also demonstrated that epicardial fat thickness was significantly increased and positively correlated with disease duration.