中文題目：心包膜脂肪含量影響心電圖特性變化之關聯性探討

英文題目：The Association Between the Amount of Epicardial Fat and the Characteristics of the Electrocardiogram

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Background: The effect of epicardial fat on the occurrence of cardiac arrhythmias has been described in many studies. The association of the characteristics of the electrocardiogram (ECG) and the amount of epicardial fat remains unclear. This purpose of this study was to determine the association between the amount of epicardial fat and the characteristics of the ECG.

Method:

A total of 100 consecutive patients who received multi-detector computer tomography (MDCT) for health examinations were enrolled. The amounts of epicardial fat, including total heart, total atria, total ventricles, right atrium (RA), right ventricle (RV), left atrium (LA), and left ventricle (LV) regions, were measured. The PR interval in lead II, the P wave duration in lead I, the corrected QT interval (QTc) and the QT dispersion of a 12-lead ECG were measured manually by a computer caliper.

Results: The PR interval was correlated with the amounts of epicardial fat including total heart, total atria, total ventricles, RA, RV, LA, and LV (R=0.295, p=0.003; R=0.379, p<0.001; R=0.284, p=0.003; R=0.415, p<0.001; R=0.287, p<0.001; R=0.33, p<0.001; R=0.244, p=0.014, respectively).

Conclusion: The P wave duration in lead I also correlated with the amount of epicardial fat, but the QTc interval and the QT dispersion did not. The PR interval and P wave duration were correlated with the amount of epicardial fat, which might imply an effect of epicardial fat on arrhythmogenesis.