

Letter to the Editor

The atrial electromechanical coupling time: what does it predict in patients with paroxysmal atrial fibrillation?

Dear Editors,

Dr. Karapinar et al¹ reported the “Delayed right atrial lateral electromechanical coupling relative to the septal one can be associated with paroxysmal atrial fibrillation”. The authors¹ aimed to evaluate the relationship between the atrial electromechanical coupling time (EMCT) and paroxysmal atrial fibrillation (PAF). While we appreciate their technical skills, we would like to make a minor criticism based on their methodology.

PAF is an important arrhythmia with its frequency and clinical consequences. PAF has the increased risk of thromboembolic complications and often precedes the onset of chronic atrial fibrillation (AF). There are some clinical, electrocardiographic and echocardiographic predictors of PAF²⁻⁴. Clinical predictors include the presence of hypertension (HT), left ventricular hypertrophy, valvular heart disease, hyperthyroidism, systolic and diastolic heart failure^{2,3}. When the same design studies, which investigated the relationship between the atrial EMCT and PAF, analysed, subjects with clinical predictors of AF were all excluded^{3,4}. However, the authors¹ did not exclude the subjects with the presence of HT, left ventricular hypertrophy, hyperthyroidism, systolic and diastolic heart failure and there was no data regarding the drug use of all the subjects to take part in the study, which could affect the rhythm and the predictors of PAF.

Another point of view, which is strongly recommended, the atrial EMCT should be assessed together with other various predictive parameters of AF such as P-wave duration and dispersion that could be easily analyzed via the surface electrocardiogram (ECG). If other predictive markers have had been screened and correlated with the atrial EMCT that would obtain a better perspective.

In addition, although statistical significance was defined as $p < 0.05$ and the p values related with the atrial EMCT were given, p values of all variables should have been given in the paper¹.

We would like to congratulate and thank the authors to point the atrial EMCT out. It seems a novel predictor of PAF, however, further large-scale prospective clinical studies with these recommendations are needed.

References

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