

## The role of left atrial deformation parameters in the prediction of atrial fibrillation recurrence after cryoballoon ablation therapy

To the Editor,

I have read with great interest the recently published article by Gerede et al. (1) entitled "Prediction of recurrence after cryoballoon ablation therapy in patients with paroxysmal atrial fibrillation" in *Anatol J Cardiol*, 2015 Sep 15 [Epub of ahead of print]. They investigated the parameters that could predict the recurrence of atrial fibrillation (AF) after cryoablation and found that reduced LAAV and low PVSV as indicators of contractile and reservoir function of left atrium were the predictors of recurrence. In the study by Gerede et al. (1), there are no data regarding patient groups' medications. As it is well known that different antiarrhythmic drugs have different efficacy for maintaining sinus rhythms, I was wondering if there was any difference between patients with or without AF recurrence in terms of antiarrhythmic therapy?

In addition, in previous studies, it has been shown that patients with AF had diminished left atrial myocardial deformation values compared with healthy individuals with normal sinus rhythm (2, 3). In a study by Hwang et al. (4), in paroxysmal AF patients who had undergone radiofrequency ablation (RFA), the recurrence rates during the 9-month follow-up period were found to be associated with the global strain of left atrium. In addition, Mirza et al. (5) suggested that the diminished left atrial strain rate value was an independent predictor of AF recurrence after RFA. In addition to the existing parameters, left atrial deformation parameters measured using the 2-D speckle tracking method may be used as an echocardiographic parameter that may give more detailed information about the left atrial functions and may play an important role in determining the AF recurrence after cryoballoon ablation therapy. It would be helpful if the authors provided this information.

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### References

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### Author's Reply

To the Editor,

I read with great interest the author's letter about our article entitled "Prediction of recurrence after cryoballoon ablation therapy in patients with paroxysmal atrial fibrillation" in *Anatol J Cardiol*, 2015 Sep 15 Epub of ahead of print.

As you said, different antiarrhythmic drugs have different efficacy for maintaining sinus rhythm. In our study, only one patient of the ablated population was using amiodarone in the preablation period; however, he discontinued this drug approximately 1 month before the ablation. The remaining patients were those who could not use any antiarrhythmic therapy. Therefore, we did not analyze the antiarrhythmic effect on recurrence because only one patient was using amiodarone. All the patients were discharged with the use of antiarrhythmic therapy after cryoablation, and on the 3-month follow-up visit, use of the antiarrhythmic drug was stopped. Amiodarone is the only available oral antiarrhythmic agent in our country; therefore, the patients used amiodarone during the 3 months after the procedure. Because all patients took the same drug using the same dose schema, an effect on the recurrence cannot be expected.

As you have mentioned, there are studies underlining the significance of left atrial strain measurements in the prediction of AF recurrence. You are right; left atrial deformation parameters measured with 2-D speckle tracking method could be included in our study. However, this method is considered as a further investigation and is not easily available; in addition, it requires special software. For these reasons, we think that the parameters, which we analyzed and suggested to be used in the prediction of AF recurrence, are more feasible and common.