

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

1. Gerede DM, Candemir B, Vurgun VK, Aghdam SM, Acıbuca A, Özcan ÖU, et al. Prediction of recurrence after cryoballoon ablation therapy in patients with paroxysmal atrial fibrillation. *Anatol J Cardiol* 2015 Sep 15. Epub ahead of print.
2. Wang T, Wang M, Fung JW, Yip GW, Zhang Y, Ho PP, et al. Atrial strain rate echocardiography can predict success or failure of cardioversion for atrial fibrillation: a combined transthoracic tissue Doppler and transoesophageal imaging study. *Int J Cardiol* 2007;

114: 202-9

3. Inaba Y, Yuda S, Kobayashi N, Hashimoto A, Uno K, Nakata T, et al. Strain rate imaging for noninvasive functional quantification of the left atrium: comparative studies in controls and patients with atrial fibrillation. *J Am Soc Echocardiogr* 2005; 18: 729-36.
4. Hwang HJ, Choi EY, Rhee SJ, Joung B, Lee BH, Lee SH, et al. Left atrial strain as predictor of successful outcomes in catheter ablation for atrial fibrillation: a two-dimensional myocardial imaging study. *J Interv Card Electrophysiol* 2009; 26: 127-32.
5. Mirza M, Caracciolo G, Khan U, Mori N, Saha SK, Srivathsan K, et al. Left atrial reservoir function predicts atrial fibrillation recurrence after catheter ablation: a two-dimensional speckle strain study. *J Interv Card Electrophysiol* 2011; 31: 197-206.

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