International Journal of Cardiology 277 (2019) 138

Contents lists available at ScienceDirect

International Journal of Cardiology

journal homepage: www.elsevier.com/locate/ijcard

Letter to the Editor

Re-thinking AF progression, or how to deal with electro-anatomical substrate in paroxysmal AF

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ARTICLE INFO

Article history:
Received 8 August 2018
Accepted 30 August 2018
Available online 31 August 2018

With the introduction of catheter ablation began the era of predictors of ablation success, complications and outcomes. First, single factors (age, gender, AF type, left atrial (LA) dimensions), later more complex scores were introduced for risk stratification in AF patients. However, recent studies force to re-think our understanding of AF progression and to reset risk stratification in AF. Not all AF patients with LA enlargement, advanced age or with persistent AF have poor therapeutical outcomes. Recently we demonstrated that prediction of rhythm outcomes using the APPLE score has limitations: even patients with low risk scores (APPLE = 0) had almost 20% risk for recurrences during follow-up [1].

Current technological developments of catheters and mapping systems facilitate insights in personalized AF progression by electro-anatomical substrate mapping (low-voltage areas, LVA). Nevertheless, LVA occurs not only in persistent AF, but also in paroxysmal [2]. In the current issue of this journal, Wang et al. [3] found >60% LVA prevalence in paroxysmal AF. We couldn't confirm these results – in our hands 'only' 12% paroxysmal AF patients had LVA [4]. But, does the presence of LVA in paroxysmal AF match to the current perception of AF progression? Recently, we demonstrated that NT-proANP could differentiate AF progression beyond AF type and LVA [4]. Similar findings were found with LA size confirming the relevance of biomarkers in AF progression [5].

In summary, future studies should analyze different markers (imaging, blood, scores) and identify the best prognostic combination associated with AF progression. This would pave the way towards truly individualized AF management.

Conflict of interests

None.

Disclosures

None.

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https://doi.org/10.1016/j.ijcard.2018.08.093