Similar outcome of heart failure with reduced EF patients with and without atrial fibrillation: considerations from the ESC Heart Failure Long-Term Registry

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Dear Editor,

Recently, transcatheter ablation of atrial fibrillation (AF) has been validated by international societal guidelines as a technique suitable for both treatment and secondary prevention of paroxysmal, persistent or long-lasting persistent AF in highly symptomatic patients in whom at least one antiarrhythmic drug had been tested [1].

However, recently, dissonant voices have arisen. In particular, the CABANA trial [2] has outlined that AF ablation compared to simple antiarrhythmic pharmacotherapy does not result in an improvement of the composite end-point consisting of death, disabling stroke, severe bleeding and cardiac arrest, on the basis of the "intention to treat" analysis. Besides, the results of the "ESC Heart Failure Long-Term Registry", a large (14,964 patients with heart failure) prospective cohort study published in December 2018 [3] showed that a statistically significant harm, namely more numerous heart failure (HF) hospitalizations and a higher risk of the composite end-point of all cause-death and HF hospitalizations, is noticeable in the case of AF involving HF with mid-range (HFmrEF 40-49%) and preserved (HFpEF ≥50%) ejection fraction (EF).

Instead, AF does not seem to induce a significant increase of the risk of poor outcomes in the subset of HF with reduced (HFREF <40%) EF. More in detail, with the multivariate Cox proportional-hazards regression analysis, in patients with AF the long-term hazard ratio for HF hospitalizations was 1.036 (95% CI 0.888-1.208, p=0.652) in HFREF group, 1.430 (95% CI 1.087-1.882, p=0.011) in HFmrEF group, and 1.487 (95% CI 1.195-1.851, p<0.001) in HFpEF group. Following this multivariable adjustment, in patients with AF the hazard ratio for the composite long-term all-cause mortality and HF hospitalizations in the HFREF, HFmrEF, and HFpEF groups was: 0.957 (95% CI 0.843-1.087, p=0.502), 1.302 (95% CI 1.055-1.608, p=0.014), and 1.365 (95% CI 1.152-1.619, p<0.001), respectively. Based on this data, a rhythm control regimen, including the most sophisticated form of this strategy, namely AF ablation, could be deemed a questionable choice in HFREF patients, in whom AF is not associated with an increased risk of HF hospitalizations as well as of the composite of all-cause mortality and HF hospitalizations. However, the appropriateness of AF ablation in HFREF patients could only be assessed by randomized controlled trials (RCTs) of AF ablation *versus* rate control strategy in this specific subset. In any case, the above-mentioned prospective cohort study [3] can be regarded useful in outlining possible scenarios that could subsequently be explored by well-arranged RCTs. Indeed, this registry data would seem to pave the way for the choice to avoid rhythm control strategy and therefore also AF ablation in HFREF patients, aiming rather at a rate control strategy. Of course, any conclusion is premature and inappropriate, as lacking of the requisite confirmation by a RCT. On this subject, which is still controversial for many aspects, a well-reasoned and clearly articulated debate could be very useful.

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References

1. Kirchhof P, Benussi S, Kotecha D, et al. 2016 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS. Eur Heart J 2016;37:2893-62. Correction in: Eur Heart J 2018;39:1109.
2. Packer DL, Mark DB, Robb RA, et al. Effect of catheter ablation vs antiarrhythmic drug therapy on mortality, stroke, bleeding, and cardiac arrest among patients with atrial fibrillation: The CABANA Randomized Clinical Trial. JAMA 2019 Mar 15. doi: 10.1001/jama.2019.0693. [Epub ahead of print].
3. Zafrir B, Lund LH, Laroche C, et al. Prognostic implications of atrial fibrillation in heart failure with reduced, mid-range, and preserved ejection fraction: a report from 14 964 patients in the European Society of Cardiology Heart Failure Long-Term Registry. Eur Heart J 2018;39:4277-84.