

The Impact of Age on Ablation Outcomes in AF-mediated Cardiomyopathy

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Background

The absence of ventricular scar in patients with atrial fibrillation (AF) and systolic heart failure (HF) predicts left ventricular (LV) recovery following AF ablation. It is unknown whether age impacts the degree of LV recovery, reverse remodeling or AF recurrence following catheter ablation among this population.

Aim

Evaluate the impact of age on outcomes in patients with presumed AF-mediated cardiomyopathy undergoing catheter ablation (CA).

Method

Consecutive patients undergoing catheter ablation (CA) between 2013- 2021 with LVEF \leq 45% and absence of cardiac magnetic resonance (CMR) imaging detected LV myocardial fibrosis were stratified by age (<65 vs \geq 65 years). Following CA, participants underwent remote rhythm monitoring for 12 months with repeat CMR for HF surveillance.

Results

Overall, 70 patients were stratified into younger (age <65 years, 63%) and older (age \geq 65 years, 37%) cohorts.

Baseline characteristics and imaging parameters were comparable (all $p>0.05$).

Comparable freedom from AF was observed irrespective of age (figure 1). There was a significant improvement in LV systolic function in both groups (Δ LVEF $+21\pm 14\%$ vs $+21\pm 12\%$ age ≥ 65 , $p=0.913$), with LV recovery in the vast majority (73% vs 69%, respectively, $p=0.759$; figure 2) at 12 months.

Figure 1: freedom from AF recurrence by age strata

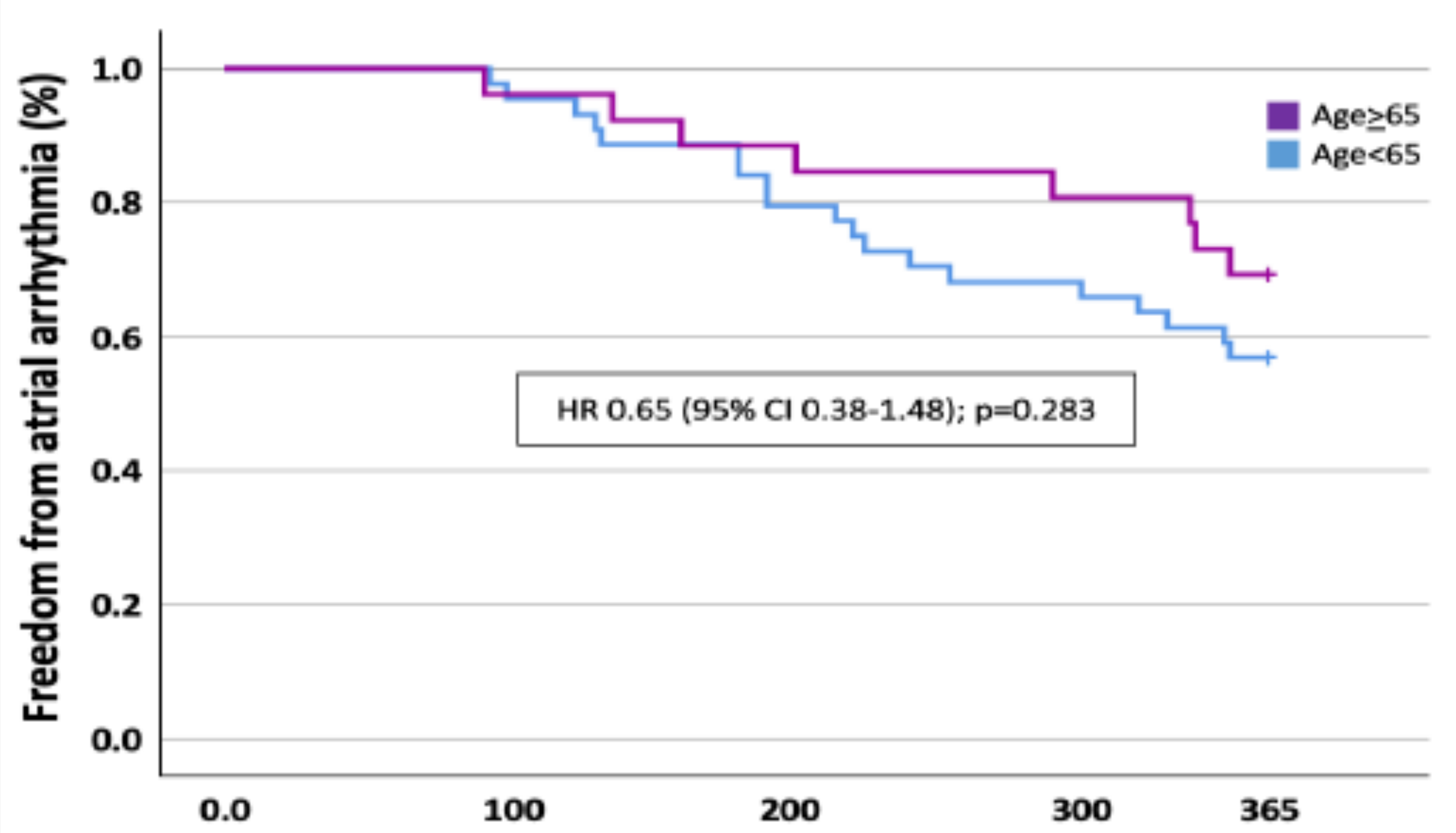
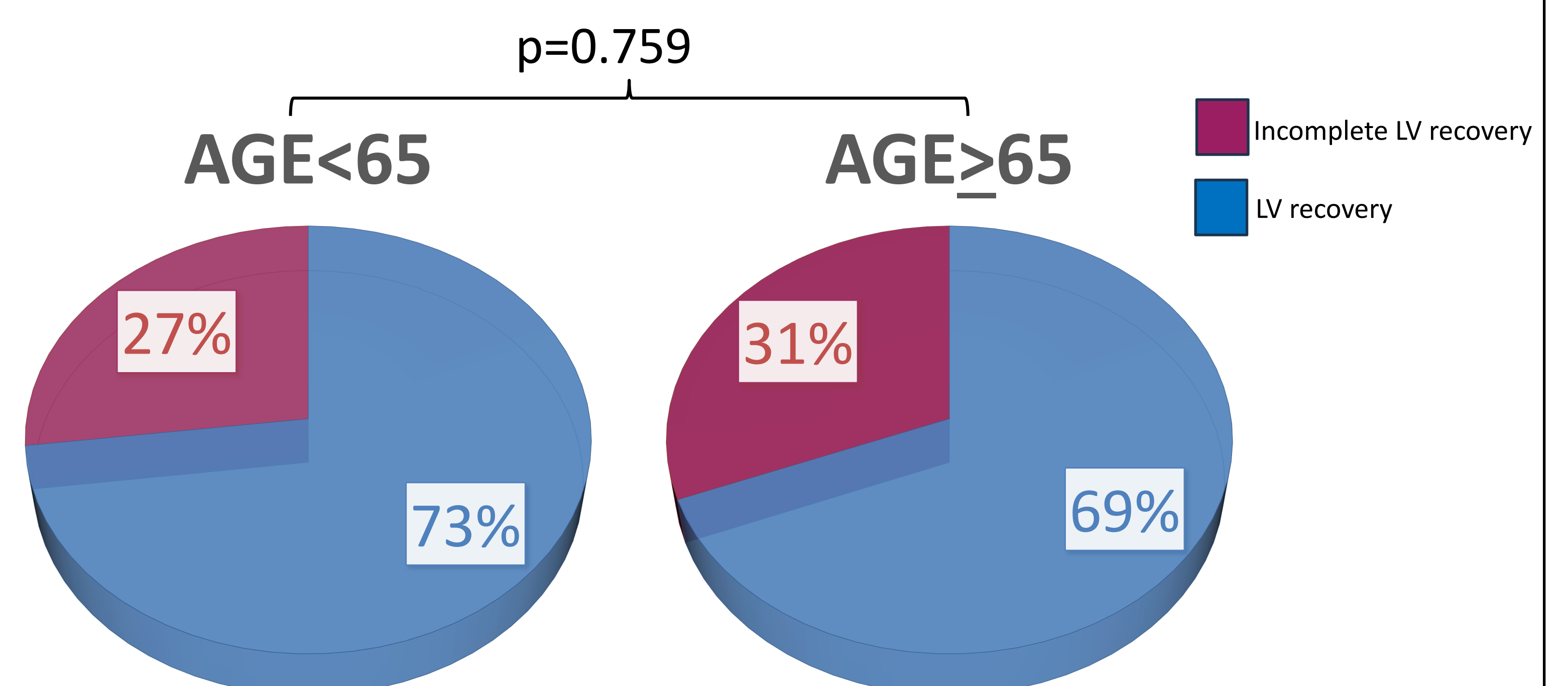


Figure 2: LV recovery stratified by age strata



Conclusion

In patients undergoing CA for AF and systolic HF in the absence of LV scar, comparable improvements in ventricular function and freedom from AF are achieved irrespective of age.