

Persistent atrial fibrillation phenotypes and ablation outcomes: Persistent from outset vs progression from paroxysmal AF

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Background

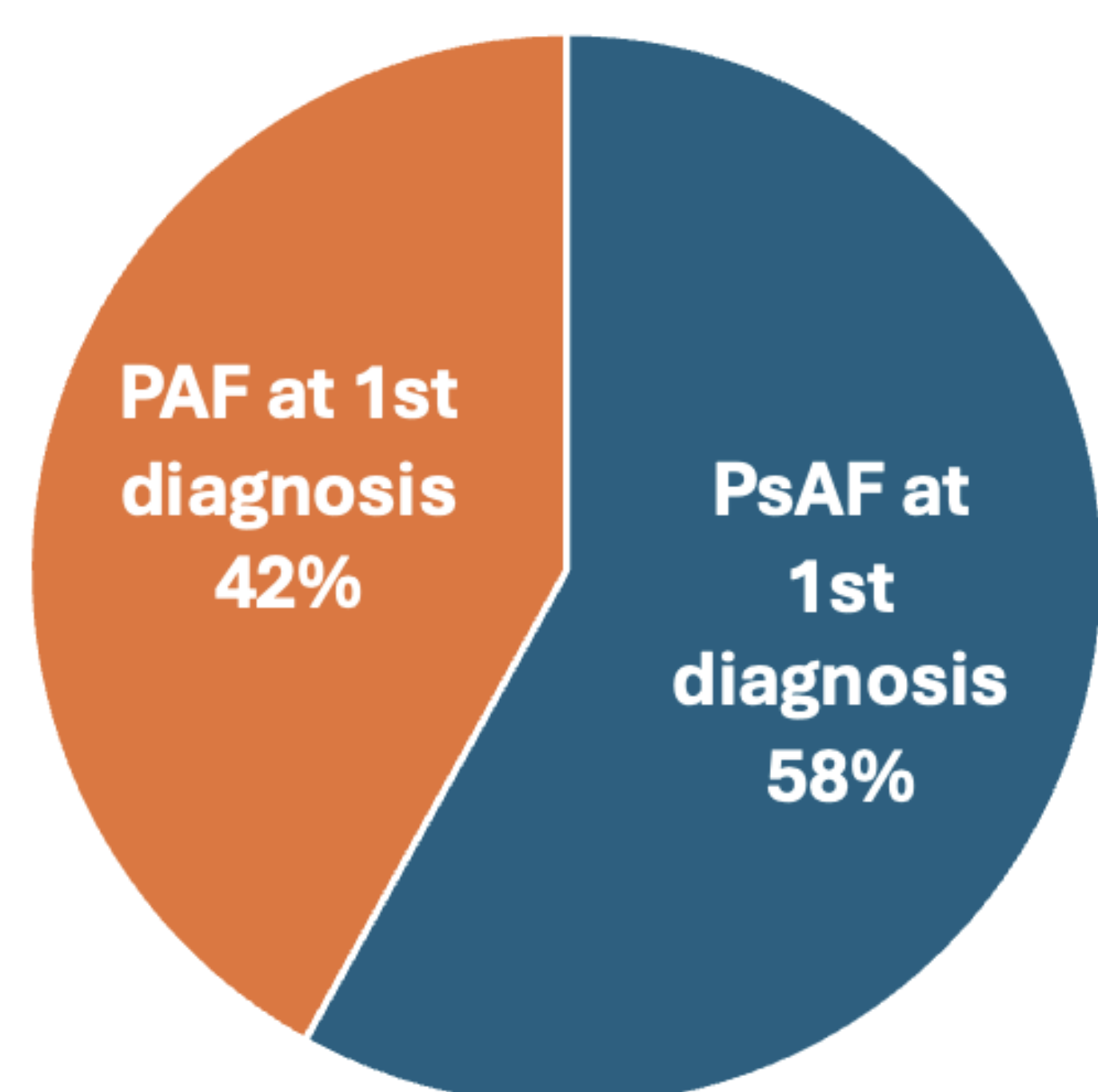
Many patients with persistent AF (PsAF) have progressed from initial paroxysmal AF (PAF), however there are patients in whom AF is persistent at diagnosis. Relatively little is known about this subgroup, but prior observational studies have suggested these patients have worse outcomes with ablation.

Aim

- 1) To assess demographic and electrophysiologic characteristics of patients with PsAF at first diagnosis compared to those with who have progressed from PAF.
- 2) To assess the impact of pattern of AF at diagnosis on recurrence post ablation.

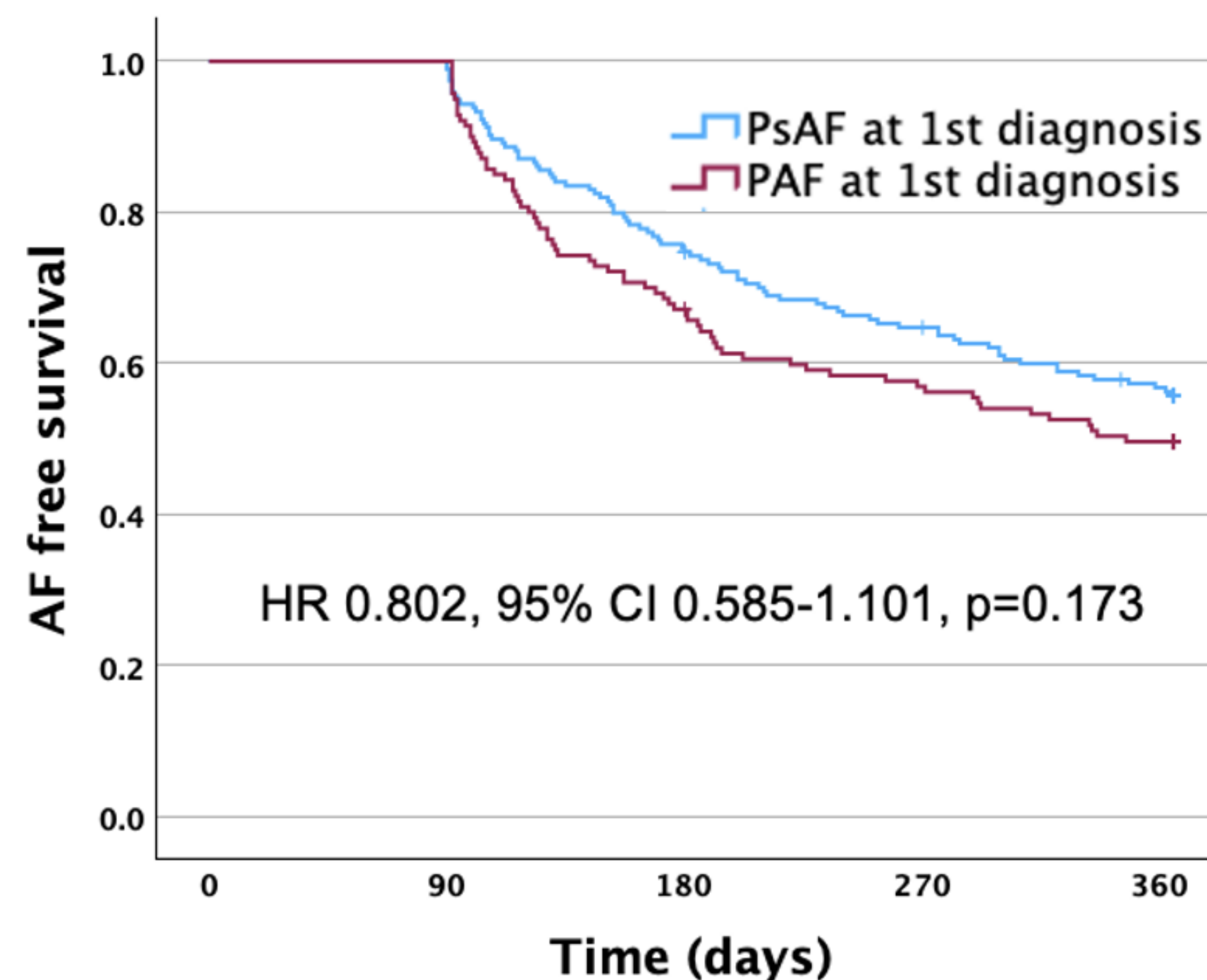
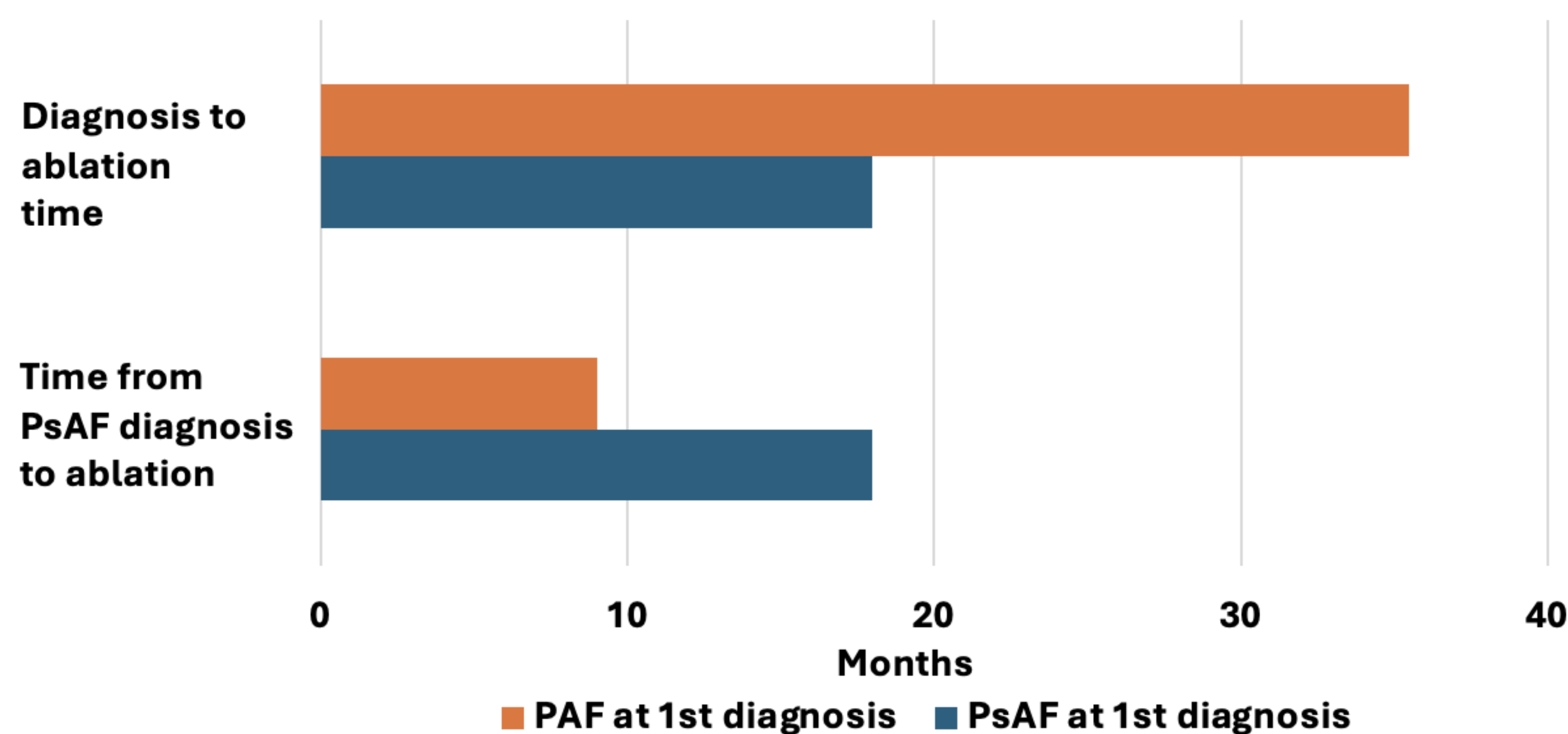
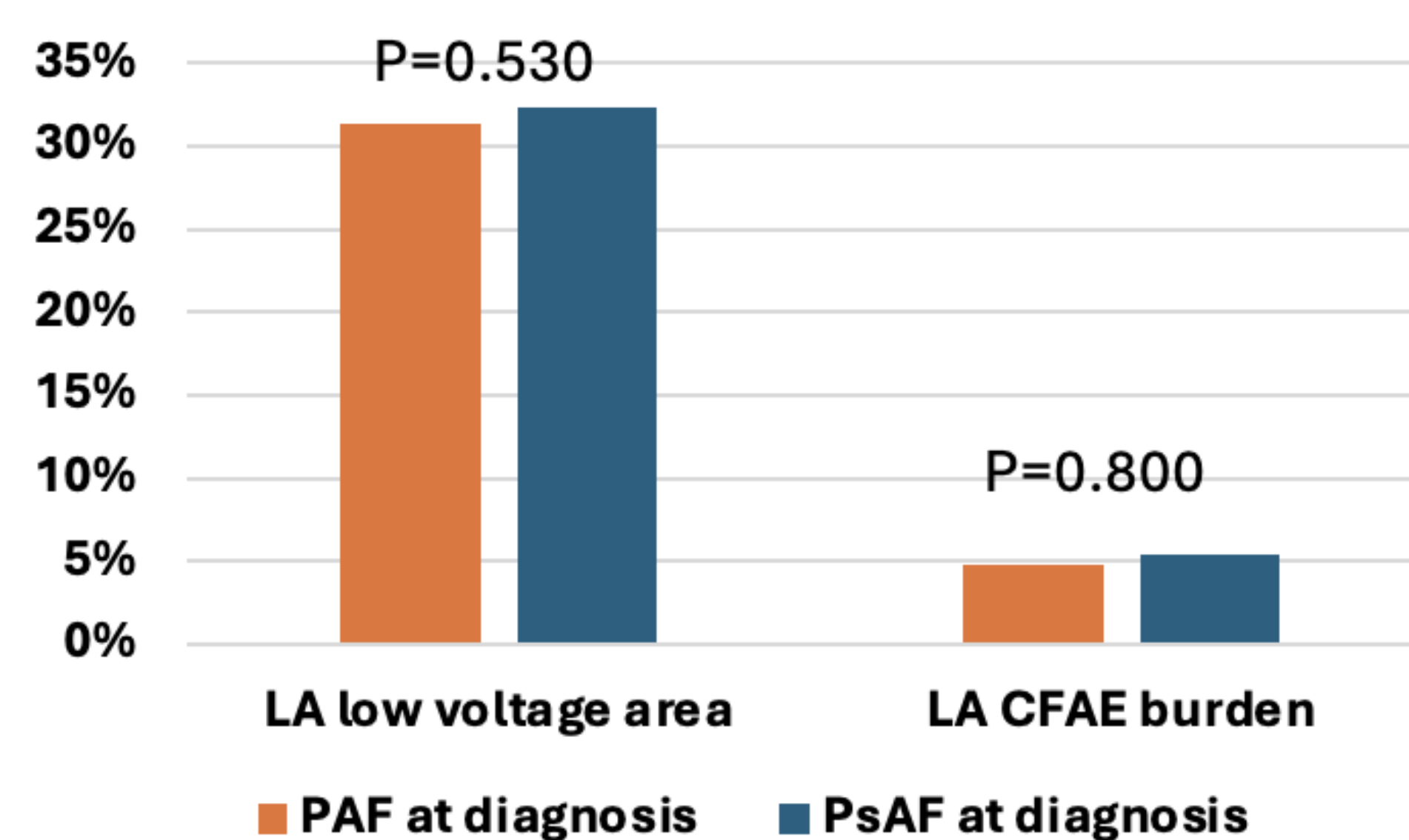
Method

CAPLA was a multicentre trial that randomised patients with PsAF to pulmonary vein isolation (PVI) plus posterior wall isolation or PVI alone. Patients were followed up for a minimum of 12 months. All outcomes were assessed after a three-month blanking period.



PsAF vs PAF at 1st diagnosis

- Younger
- More heart failure and lower LVEF
- No difference in LA remodeling
- No difference in ablation outcomes



Results

334 patients (median age 65.6 yrs, 23.1% female) were included. Patients with PsAF at diagnosis were younger (64.0 vs 67.7 yrs, $p=0.005$) and had lower rates of hypertension (40.7% vs 55.7% $p=0.007$) and ischaemic heart disease (8.8% vs 17.1% $p=0.021$). They had higher rates of heart failure (51.0% vs 31.4% $p<0.001$) and HFrEF (34.0% vs 23.6% $p=0.039$) and a lower median LVEF (54.5% vs 60%, $p=0.007$). AF recurrence occurred in 86 (43.8%) patients with PsAF at time of diagnosis and 70 (50%) with PAF at time of diagnosis. PsAF at first diagnosis was not associated with increased risk of AF recurrence on univariate or multivariate analysis (HR 0.922 95% C.I. 0.647-1.312, $p=0.650$). Median AF burden was 0% in both groups ($p=0.125$). Pattern of recurrence (PAF or PsAF) did not differ between the groups.

Conclusion

In the CAPLA cohort of patients, pattern of AF at first diagnosis did not influence post-ablation rate of AF recurrence or AF burden.