

Introduction **Methods** **Results**

- Atrial fibrillation (AF) is a growing clinical problem in the developing world.
- Paroxysmal (defined as <7 days duration) and persistent (defined as >7 days and < 3 years duration) AF patients are often grouped together when comparing treatment outcomes in contemporary randomized trials which could impact results
- We examined a registry of AF patients undergoing radiofrequency catheter ablation therapy by comparing the outcomes between persistent and paroxysmal AF patients.

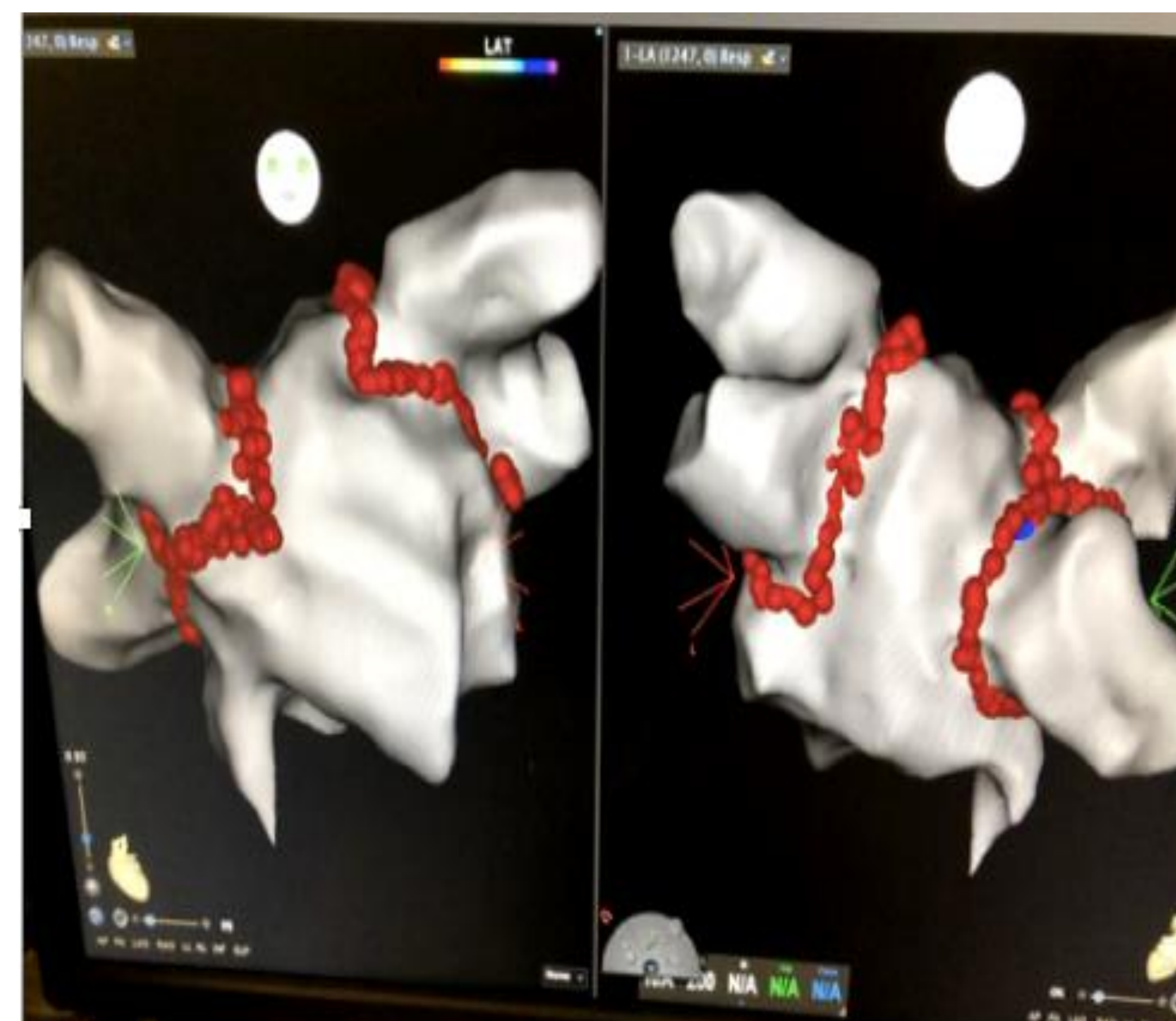
415 ECG confirmed AF patients (pts) were enrolled into a rolling prospective registry (MANAGE-AF; 2018 to present) with their demographics, treatments, and outcomes recorded. Enrolled patients were defined as paroxysmal (n=196) and persistent (n=198). These patients were divided into ablated and non-ablated groups. **The primary endpoints for the study were death, clinical stroke, and recurrence of AF.**

There was a significantly lower frequency of recurrent AF in ablated vs non-ablated pts with paroxysmal AF (ablated 11/113, nonablated 25/83, p= .01, mean age= 72.2±10.7 years), but not with persistent AF (ablated 51/136, nonablated 24/62, p =.87, mean age= 72±11.1 years).

Both the paroxysmal and persistent groups had significantly less death when ablated compared to non-ablated [(ablated 3/113, nonablated 8/83 p= .02); (ablated 4/136, nonablated 7/62 p =.04), respectively]. Aside from one paroxysmal ablated patient, no patients experienced clinical stroke.

Figure 3: AF Ablation Methods

This figure demonstrates the approach to ablation. A 3-D recreation of the left atrium allowed for pulmonary vein isolation (Figure 3). The red dots indicate ablation points. In the case of persistent AF linear lesion sets in the left and right atrium for more organized atrial flutters was used based on the substrate, fibrosis and anisotropy encountered.



Conflicts/Acknowledgments

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Fig. 4: Rate of AF Recurrence

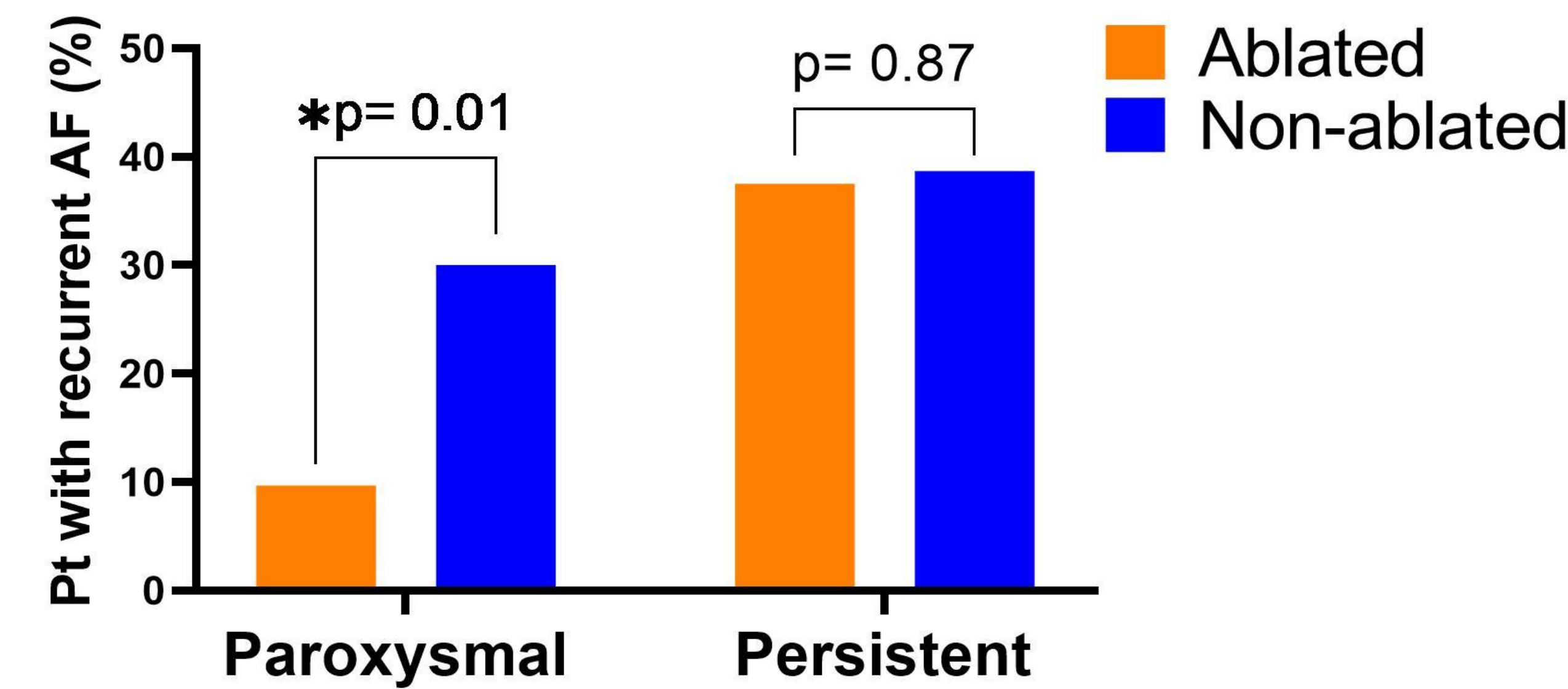


Fig. 5: Rate of All Cause Mortality

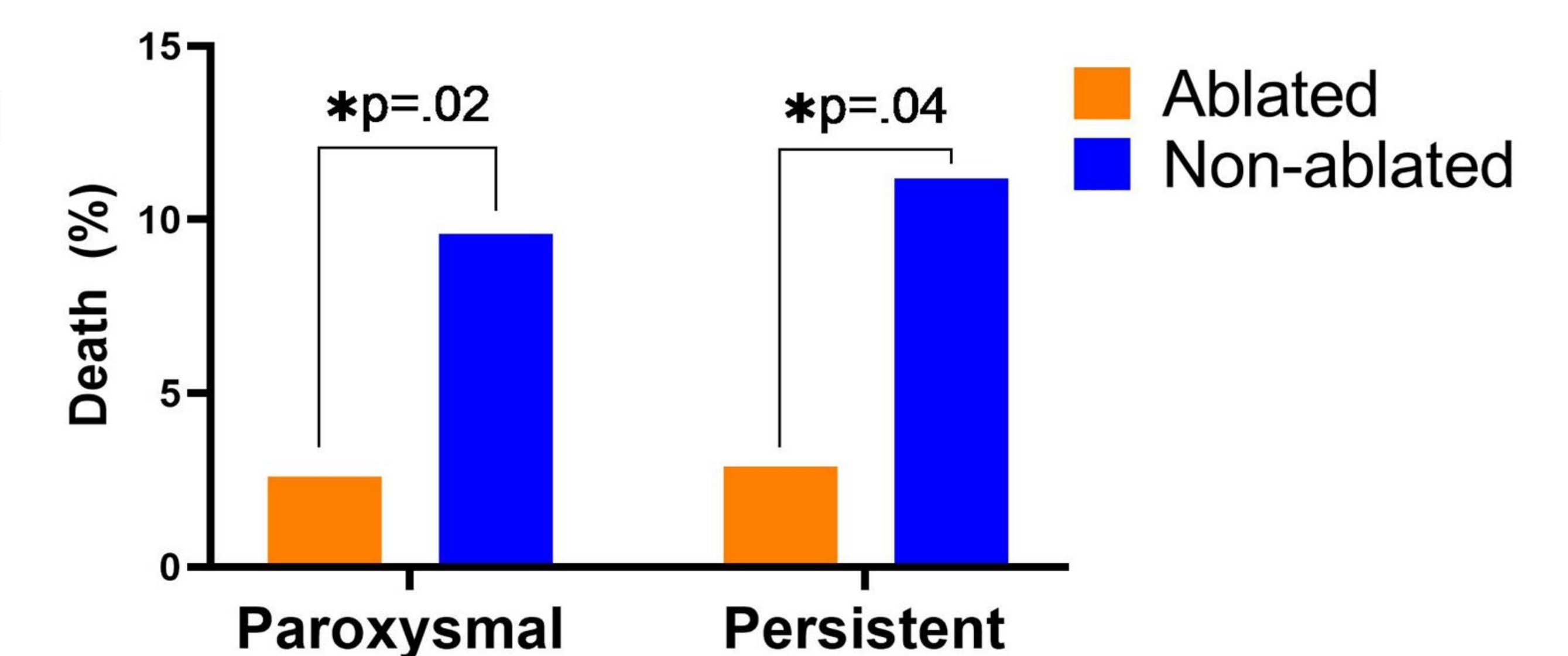


Fig. 6: Paroxysmal Primary Outcomes (Recurrence, Death, Stroke) Survival

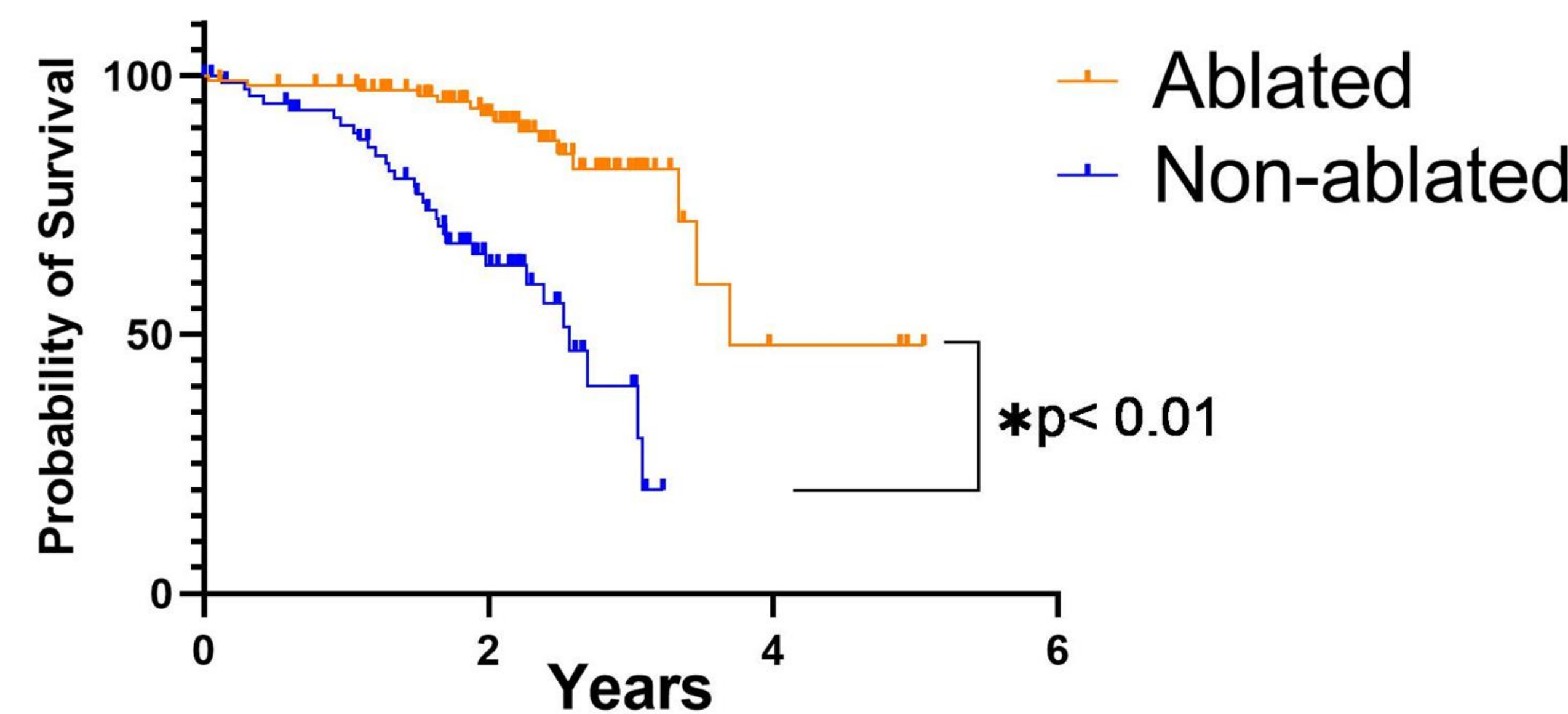
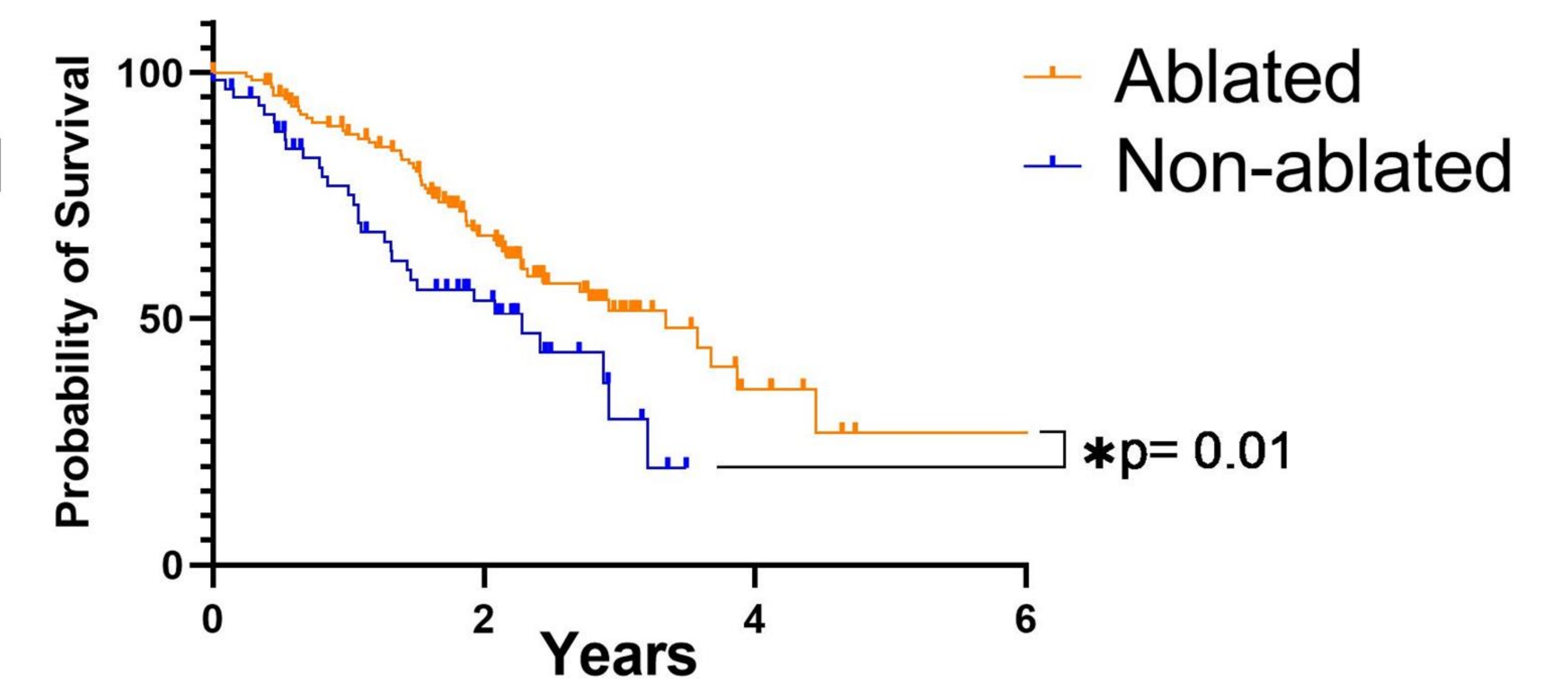


Fig. 7: Persistent Primary Outcomes (Recurrence, Death, Stroke) Survival



Conclusions

- Radiofrequency ablation appears significantly more effective in preventing death and recurrence of AF in patients with paroxysmal AF.
- RF ablation in persistent AF patients significantly improved survival but did not impact recurrence of AF compared to the non-ablated persistent patients.
- This may be due to prolonged disease burden and possibly atrial fibrosis setting up a more arrhythmic substrate.
- Applying ablation strategies earlier in the AF natural history appears appropriate.

Figure 1: Types of AF

Term	Definition
Paroxysmal AF	• AF that terminates spontaneously or with intervention within 7 d of onset. • Episodes may recur with variable frequency.
Persistent AF	• Continuous AF that is sustained >7 d.
Long-standing persistent AF	• Continuous AF >12 mo in duration.
Permanent AF	• The term "permanent AF" is used when the patient and clinician make a joint decision to stop further attempts to restore and/or maintain sinus rhythm. • Acceptance of AF represents a therapeutic attitude on the part of the patient and clinician rather than an inherent pathophysiological attribute of AF. • Acceptance of AF may change as symptoms, efficacy of therapeutic interventions, and patient and clinician preferences evolve.
Nonvalvular AF	• AF in the absence of rheumatic mitral stenosis, a mechanical or bioprosthetic heart valve, or mitral valve repair.

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Figure 2: Dual Substrates for AF

