Catheter ablation in atrial fibrillation: comorbidities and mortality from high-volume centers

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Background: Catheter ablation (CA), has gained wider acceptance as an attractive option for treating symptomatic AF. Although traditionally seen as a safe procedure, there is limited and conflicting data on procedure-related early morbimortality, with new evidence suggesting early mortality may be as high as 0.5%-1%.

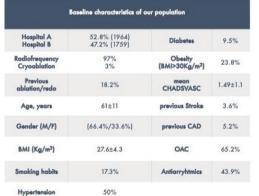
Purpose: We aimed to assess the rates of early and late morbimortality of post-atrial fibrillation (AF) ablation in high-volume centers.

Methods: Prospective registry of 2 high-volume ablation centers, comprising 3722 consecutive patients (mean age 61.1 ± 11.2 , 66.4% male, n=2471), who underwent AF ablation from 2005 to 2019. Early mortality was defined as death during initial admission or during the first 45 days after ablation. Median follow-up time was 5.4 years.

Results: Most patients were treated with radiofrequency (97%) while 3% were treated with cryoablation. Early mortality was 0.08% (n=3), with a median time from ablation to death of 22 days. Cumulative mortality at 3,

6 and 12 months was 0.08%, 0.16% and 0.19%, respectively. At 3 and 5 years, mortality remained low at 0.48% and 0.73%, respectively. Early mortality was higher among patients who had suffered procedural complications (fistula and stroke, p<0.001). Among the latter, pericardial effusion and tamponade were the most frequently found (0.6%, n=24), only 1 of which required emergent surgical drainage and myocardial repair. Early ischemic stroke occurred in 2 patients (0.1%). Other less frequent complications were atrio-esophageal fistula (0.1%, n=2), phrenic nerve palsy (0.1%, n=2), anoxic encephalopathy following cardiac arrest (0.03%, n=1) and pulmonary vein stenosis (0.03%, n=1).

Conclusion: Early mortality following ablation is very low (<0.1%), when performed by an experienced high-volume team. Severe complications are rare (<1%) and mostly amenable to treatment. Our findings reaffirm the overall safety of AF ablation.





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