

Publication

Association of pulmonary vein isolation and major cardiovascular events in patients with atrial fibrillation.

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Patients with atrial fibrillation (AF) face an increased risk of adverse cardiovascular events. Evidence suggests that early rhythm control including AF ablation may reduce this risk.; To compare the risks for cardiovascular events in AF patients with and without pulmonary vein isolation (PVI), we analysed data from two prospective cohort studies in Switzerland (n = 3968). A total of 325 patients who had undergone PVI during a 1-year observational period were assigned to the PVI group. Using coarsened exact matching, 2193 patients were assigned to the non-PVI group. Outcomes were all-cause mortality, hospital admission for acute heart failure, a composite of stroke, transient ischemic attack and systemic embolism (Stroke/TIA/SE), myocardial infarction (MI), and bleedings. We calculated multivariable adjusted Cox proportional-hazards models.; Overall, 2518 patients were included, median age was 66 years [IQR 61.0, 71.0], 25.8% were female. After a median follow-up time of 3.9 years, fewer patients in the PVI group died from any cause (incidence per 100 patient-years 0.64 versus 1.87, HR 0.39, 95%CI 0.19-0.79, p = 0.009) or were admitted to hospital for acute heart failure (incidence per 100 patient-years 0.52 versus 1.72, HR 0.44, 95%CI 0.21-0.95, p = 0.035). There was no significant association between PVI and Stroke/TIA/SE (HR 0.94, 95%CI 0.52-1.69, p = 0.80), MI (HR 0.43, 95%CI 0.11-1.63, p = 0.20) or bleeding (HR 0.75, 95% CI 0.50-1.12, p = 0.20).; In our matched comparison, patients in the PVI group had a lower incidence rate of all-cause mortality and hospital admission for acute heart failure compared to the non-PVI group.; NCT02105844, April 7th 2014.

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