ATRIAL FIBRILLATION

Catheter ablation is better than drugs to treat persistent AF

Ablation therapy could be an effective treatment for patients with persistent atrial fibrillation (AF). In a randomized, controlled trial comparing catheter ablation with antiarrhythmic drug therapy, patients who underwent catheter ablation had fewer episodes of AF or atrial flutter lasting >24 h than patients treated with drug therapy.

Catheter ablation is commonly used to treat patients with paroxysmal AF, but mixed results have been reported on the use of this procedure in patients with persistent AF. These studies “have mixed populations, and this has generated a negative perception on the efficacy of ablation in [patients with] persistent AF,” says Lluís Mont, one of the study investigators. He hypothesized that

patients with persistent AF respond differently to ablation therapy than patients with long-standing persistent AF or an advanced stage of remodelling. To carefully examine the effect of catheter ablation therapy specifically in patients with persistent (but not long-standing persistent) AF, patients with AF for >1 year or with a left atrial diameter >50 mm were specifically excluded from his study.

A total of 146 patients with symptomatic, persistent AF (>7 days or <7 days requiring electrical or pharmacological conversion) who were refractory to at least one class I or class III antiarrhythmic drug were randomly assigned to catheter ablation therapy or antiarrhythmic drug therapy in a 2:1 ratio. Patients receiving drug therapy were treated with the physician's choice of medication, and according to current guidelines. In an intention-to-treat analysis, 70.4% of the patients treated with catheter ablation were free from the primary end point (AF or atrial flutter lasting >24 h) 12 months after the start of the intervention, compared with 43.7% of the patients treated with drug therapy ($P=0.002$, absolute risk difference = 26.6%, 95% CI 10.0–43.3). The proportion of patients free from AF or atrial flutter lasting >30 s was also higher in the group of patients treated with catheter ablation than in the group treated with antiarrhythmic drugs (60.2% and 29.2% respectively, $P<0.001$). The need for cardioversion was less frequent in patients treated with

catheter ablation than those treated with drug therapy (34.7% and 50.0% respectively, $P=0.018$). “The results of the study confirmed what most physicians active in the field believe—that catheter ablation is superior to antiarrhythmic drug therapy,” says Hugh Calkins, who was not involved with the study.

Calkins hopes to “see more randomized clinical trials like this in patients with persistent AF, [and that] we will see randomized clinical trials of antiarrhythmic drug therapy versus catheter ablation in patients with long-standing persistent AF”. For patients with persistent AF, “some groups advise a stepwise approach including ablation of complex fractionated electrograms, and lines of ablation,” says Mont. “Further research will be devoted to finding whether a more-personalized approach (depending on the severity of the underlying disease) could be performed, based on tissue characterization (detection of fibrosis), or stratification based on atrial remodelling.” These studies could further define which patients benefit most from ablation therapy, thereby enabling appropriate assignment of patients to ablation therapy or antiarrhythmic drug therapy.

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Original article Mont, L. et al. Catheter ablation vs. antiarrhythmic drug treatment of persistent atrial fibrillation: a multicentre, randomized, controlled trial (SARA study). *Eur. Heart J.* doi:10.1093/eurheartj/ehd457