

ATRIAL FIBRILLATION

Migraine improvement after AF ablation

In a new, open-label, prospective study of patients with atrial fibrillation (AF) undergoing catheter ablation, the frequency and severity of migraine symptoms was reduced after the intervention.

Patients indicated for AF ablation with an established diagnosis of migraine (group 1; $n=40$) or no history of migraine (group 2; $n=85$) were assessed for a primary end point of changes in migraine status by using a standardized questionnaire at baseline and 6 and 12 months after the procedure.

At baseline, 65% of patients in group 1 reported ≤ 1 migraine episode per month, 25% reported 2–9 episodes per month, and 10% reported ≥ 10 episodes per month. At follow-up (17 ± 5 months after ablation), 63% of patients in group 1 reported no migraines, 25% reported < 1 episode per month and 8% reported 2–3 episodes per month. Patients in group 1 also reported a reduction in migraine pain intensity (scale points 7 vs 2; $P < 0.001$) and headache duration (median 8.0 h vs 0.5 h; $P < 0.001$) at follow-up. Only two patients

in group 1 (5%) reported worsening of migraine symptoms, and two patients in group 2 (2%) had new-onset migraine after ablation. Diffusion MRI revealed that these four patients had postablation silent cerebral infarcts, and they also had a subtherapeutic international normalized ratio (INR) at baseline.

These results suggest that catheter ablation performed under therapeutic INR can reduce the frequency and improve the symptoms of migraine by mechanisms still unknown. Further studies in larger populations are needed to confirm the association between migraine, silent cerebral infarcts, and subtherapeutic INR in patients with AF.

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Original article Mohanty, S. *et al.* Effect of catheter ablation and peri-procedural anticoagulation regimen on the clinical course of migraine in atrial fibrillation patients with or without pre-existent migraine: results from a prospective study (CONFIRM). *Circ. Arrhythm. Electrophysiol.* doi:10.1161/CIRCEP.114.002285