

Robotic navigation noninferior for CVPI in atrial fibrillation

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(HealthDay)—For patients with atrial fibrillation (AF) undergoing

circumferential pulmonary vein isolation (CPVI), use of robotic navigation (RN) systems is noninferior to manual ablation (MN), according to a study published online June 28 in *JACC: Clinical Electrophysiology*.

Andreas Rillig, M.D., from Asklepios Klinik St. Georg in Hamburg, Germany, and colleagues examined the efficacy and safety of CPVI using RN systems versus MN in a prospective trial involving 258 patients with paroxysmal or persistent AF. Participants were randomized to CPVI with either RN (131 patients) or MN (127 patients). CPVI was performed using irrigated radiofrequency [ablation](#) in combination with a 3D mapping system in all patients.

The researchers found that the MN-group had significantly shorter procedure time (129.3 ± 43.1 versus 140.9 ± 36.5 minutes; $P = 0.026$). Overall, 123 [patients](#) from the RN group and 124 from the MN group completed the 12-month follow-up. The rate of recurrence was comparable between the RN and MN groups (23.6 and 20.2 percent, respectively). There was no significant difference between the groups in terms of the incidence of procedure-related major complications (6.1 and 4.7 percent in the RN and MN groups, respectively; $P = 0.62$). A fatal atrio-esophageal fistula developed in one patient from the RN group.

"This study demonstrated that robotic ablation is noninferior to the current gold-standard of manual ablation for CPVI with respect to success and complication rates," the authors write.

Several authors disclosed financial ties to pharmaceutical and medical device companies, including St. Jude Medical and Hansen Medical, which partially supported the study.

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