

ARRHYTHMIAS

Scar dechannelling limits amount of ablation needed to treat VT

Conducting channels are areas of scar tissue that can function as re-entry circuits for ventricular tachycardia (VT). Scar dechannelling—a new technique that targets the entrance of these conducting channels—can limit the amount of ablation required to treat VT and improves outcomes in patients with this arrhythmia.

Investigators enrolled 101 patients scheduled to receive left ventricular ablation for scar-related VT. Those with VT owing to a reversible cause were excluded from the study. Patients were followed up for 21 months (interquartile range 11–29 months).

The team first performed substrate mapping to identify scar-related conducting channels, which were then eliminated by radiofrequency ablation. To ensure all conducting channels had been targeted, the left ventricle was remapped and any remaining channels subjected to a second ablation. The team then induced

VT and performed a final ablation if required to eliminate any residual VT sites.

Patients who required only scar dechannelling had fewer radiofrequency ablations (19 ± 11 versus 27 ± 18 ; $P=0.01$) and a shorter procedure time (213 ± 64 min versus 244 ± 71 min; $P=0.027$) than those who required additional VT ablation. Importantly, patients who received scar dechannelling only had better event-free survival (80% versus 62%) and lower mortality (5% versus 11%; $P=0.013$ for both outcomes) than those who required additional VT ablation. The investigators conclude that “scar dechanneling alone results in low recurrence [rates] and mortality ... in more than half of patients despite the limited ablation extent required”.

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