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ARRHYTHMIAS

Ablation of ventricular tachycardia in ischaemic cardiomyopathy

In patients with ischaemic cardiomyopathy, an implanted cardioverter–defibrillator, and recurrent ventricular tachycardia despite the use of antiarrhythmic drugs, catheter ablation is more effective than escalated drug therapy at preventing death or recurrent tachycardia. This finding from the VANISH trial was presented at the Heart Rhythm Scientific Sessions 2016 and published in *The New England Journal of Medicine*.

Scarring after myocardial infarction can lead to ventricular tachycardia. The increased risk of death from this arrhythmia can be mitigated by implantation of a cardioverter–defibrillator, but many patients still experience arrhythmias. The aim of the VANISH trial was to test whether catheter ablation or escalation in drug therapy was more effective in these patients.

In the multicentre, randomized, controlled trial, 259 patients were randomly assigned to ablation or escalated therapy. During follow-up (mean 27.9 months), the primary composite outcome of death, three or more documented episodes of ventricular tachycardia within 24 h, or an appropriate shock from an implanted cardioverter–defibrillator occurred in 59.1% of the ablation group and 68.5% of the escalated drug therapy group (HR 0.72, 95% CI 0.53–0.98, $P = 0.04$). No significant differences were observed between the groups in mortality or any of the other individual components of the primary end point.

According to John Sapp, lead author on the report, "in a prespecified subgroup analysis, we also found that most of this benefit was seen in the group whose ventricular tachycardia occurred despite the most powerful antiarrhythmic drug therapy".

> "catheter ablation was significantly more effective than escalation of drug therapy"

In patients in whom ventricular tachycardia occurred despite the use of amiodarone at baseline, catheter ablation was significantly more effective than escalation of drug therapy in preventing primary outcome events (HR 0.55, 95% CI 0.38–0.80, $P = 0.001$).

"I think this provides us with patient care guidance," concludes Sapp. "For patients whose ventricular tachycardia occurs despite first-line antiarrhythmic drug therapy, catheter ablation should be considered. Our next step will be to study which strategy is most effective as first-line therapy."

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ORIGINAL ARTICLE Sapp, J. L. *et al.* Ventricular tachycardia ablation versus escalation of antiarrhythmic drugs. *N. Engl. J. Med.* http://dx.doi.org/10.1056/NEJMoa1513614 (2016)