

Long-term outcome of ventricular tachycardia catheter ablation in ischemic heart disease patients using a high-density mapping substrate-based approach: a prospective cohort study.

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INTRODUCTION

Radiofrequency catheter ablation (RCA) for ventricular tachycardia (VT) in patients (pts) with ischemic heart disease (IHD) is associated with a reduced risk of VT storm and implantable cardioverter defibrillator (ICD) shocks.

AIM

To report the long-term outcome after a single RCA procedure for VT in patients with IHD using a high-density substrate-based approach.

METHODS

- Prospective, observational, single-centre and single-arm study involving patients with IHD, referred for RCA procedure for VT using high-density mapping catheters. Substrate mapping was performed in all pts.

Procedural endpoints: VT noninducibility and local abnormal ventricular activities (LAVAs) elimination.

Primary end point: survival free from appropriate ICD shocks

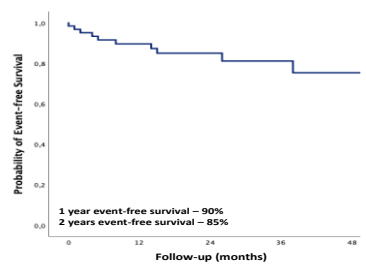
secondary end points: VT storm and all-cause mortality.

RESULTS

Population characteristics	N = 64
Age - average (SD), years	68 ± 9
Male sex - %	95
LVEF - median (IQR), %	33±11
VT storms - %	39
Appropriate ICD shocks	69

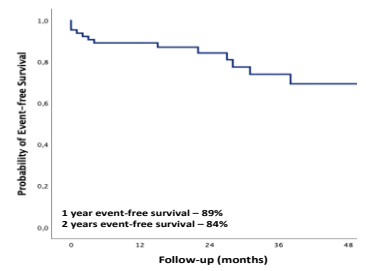
Procedure characteristics	
LAVA detection - %	100
Sustained TV induction - %	83
LAVA elimination - %	93.8
LAVA noninducibility - %	60

A. Appropriate ICD Shock



No. at Risk	64	42	23	14	9
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B. All-cause Mortality



No. at Risk	64	46	28	16	11
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CONCLUSIONS

RCA of VT using a high-density mapping substrate-based approach resulted in a long-term steady freedom of ICD shocks and VT storm in IHD patients.