

VT, Presyncope, and
Epicardial Scar in CMR

Is it idiopathic?



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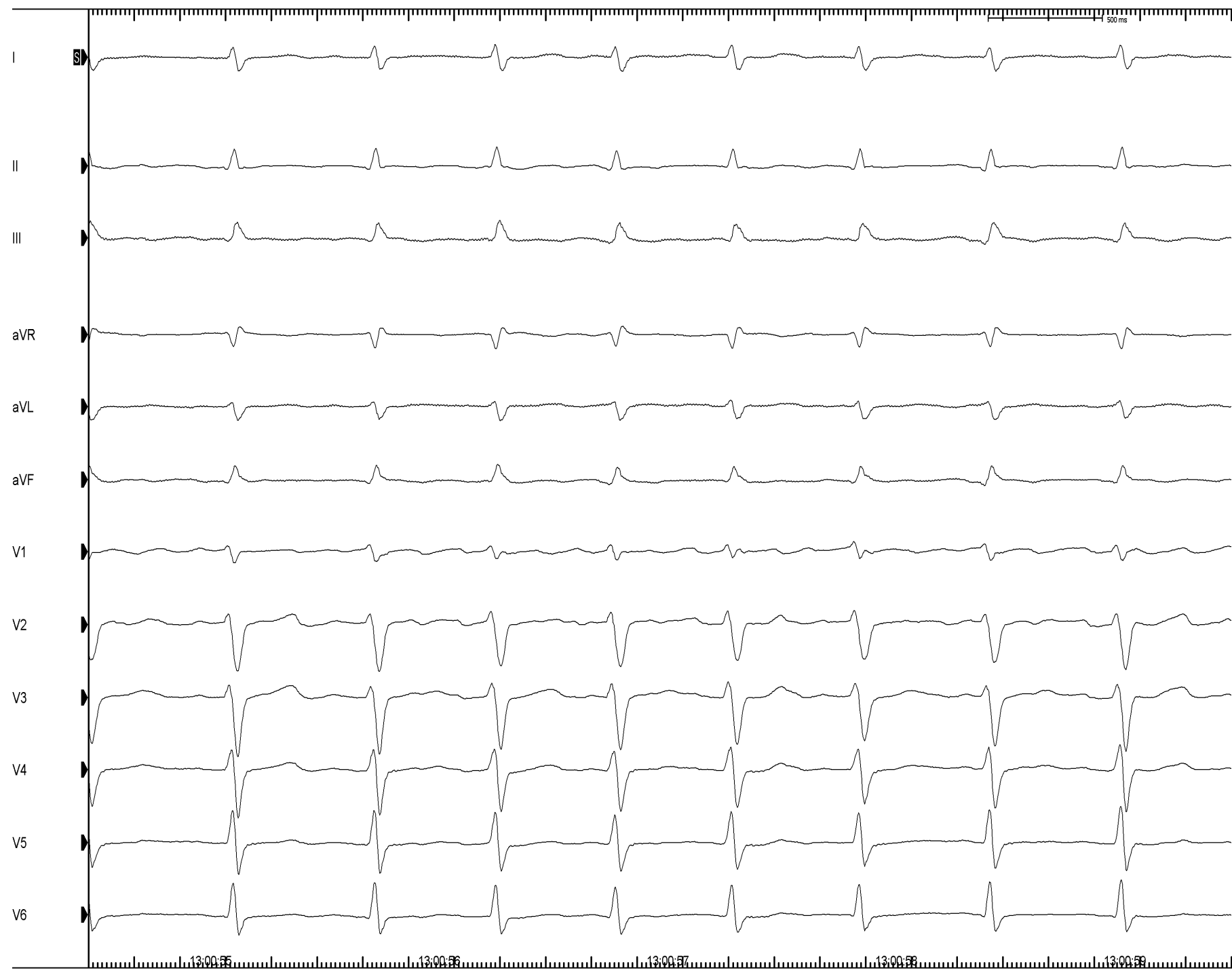
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Introduction:

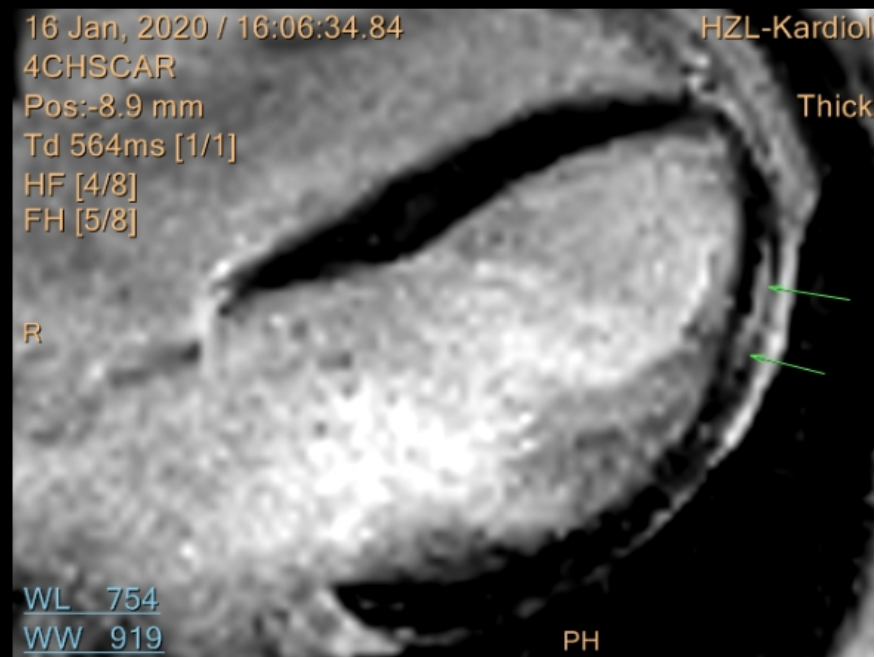
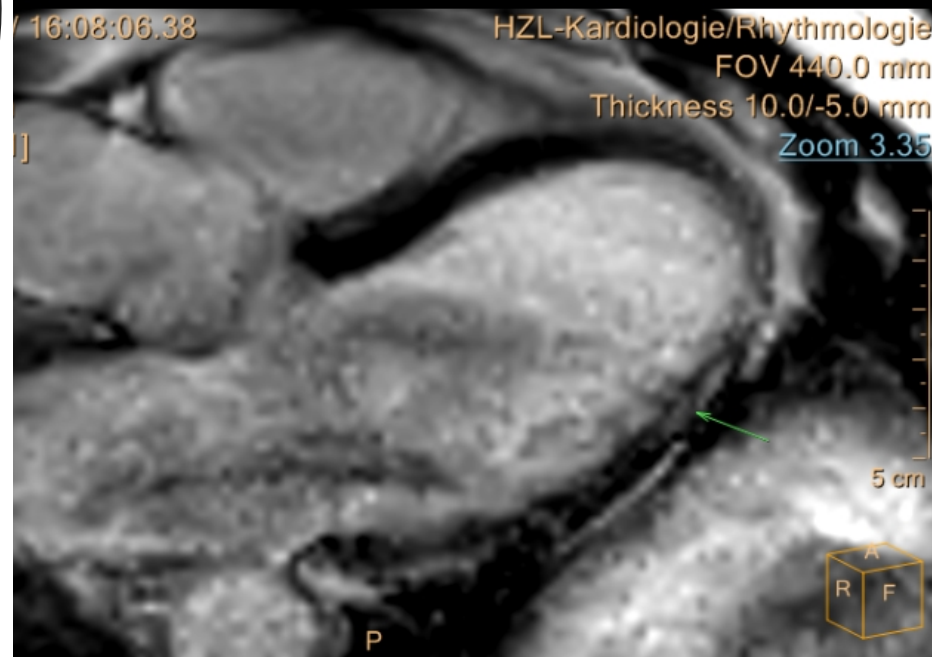
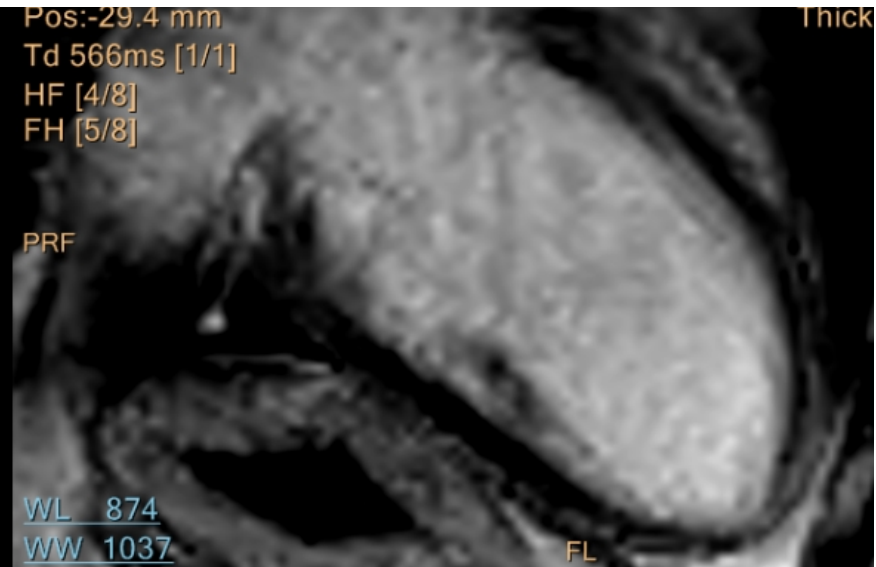
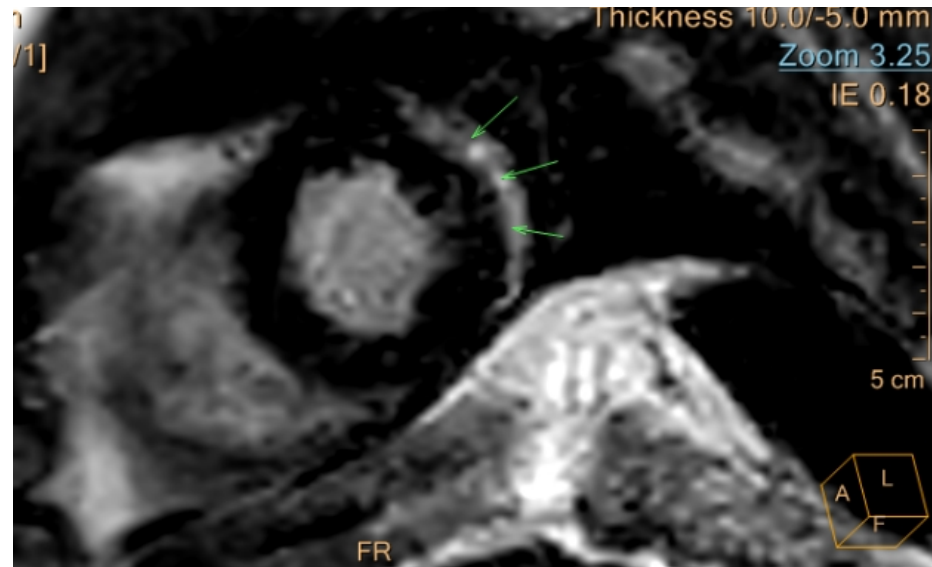
- 61-year-old male patient
- History of exercise induced palpitation and frequent PVCs.
- Her received diagnosis of myocarditis during early adulthood
- Presyncope and palpitation (12/2019)
- Referred to our centre with documented VT and presyncope during cycling for further diagnosis.
- External evaluation including TTE (LVEF: 66%) and coronary angiography were normal (/012020)
- Persistent atrial fibrillation

Baseline
ECG: AF



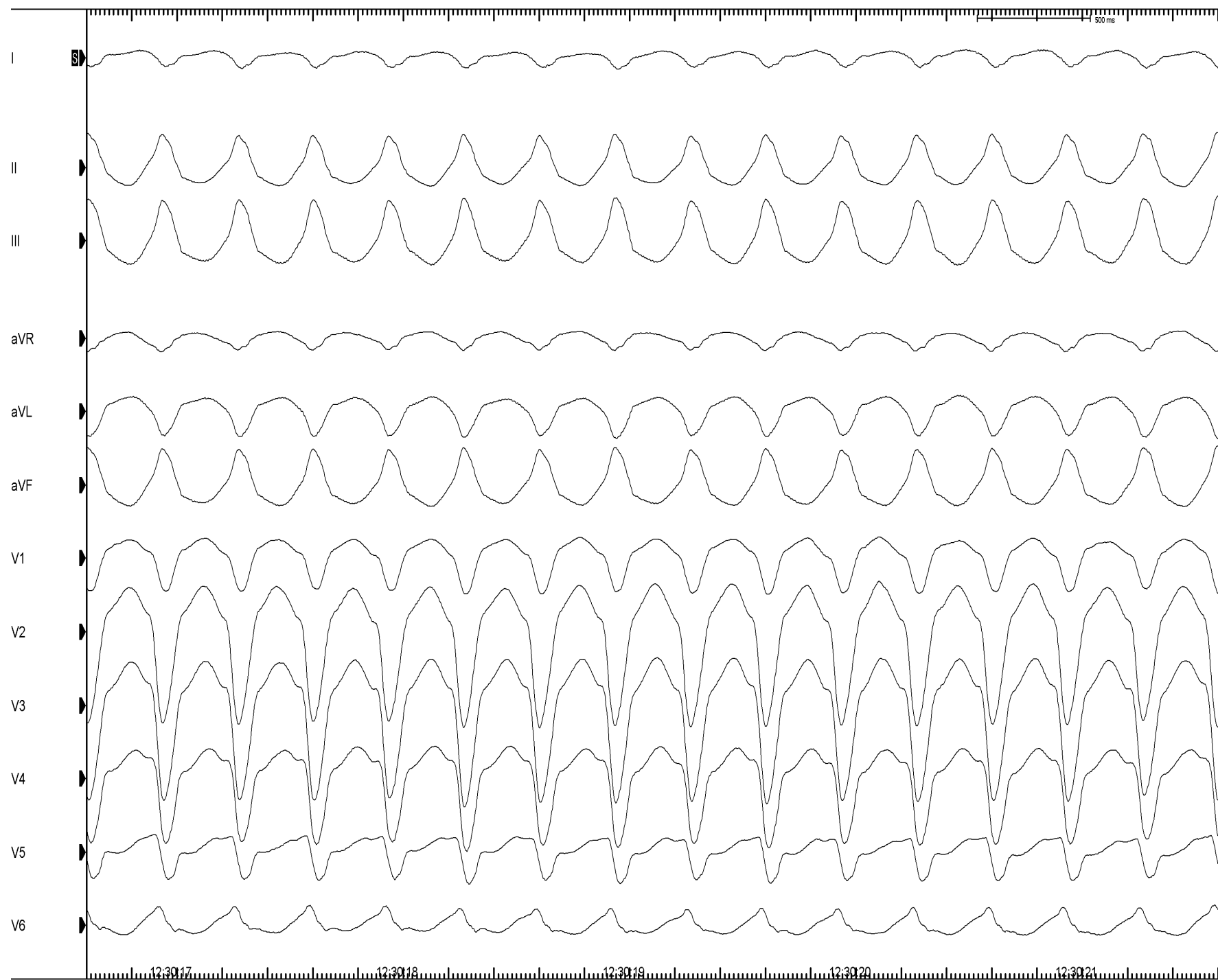
Cardiac CMR:

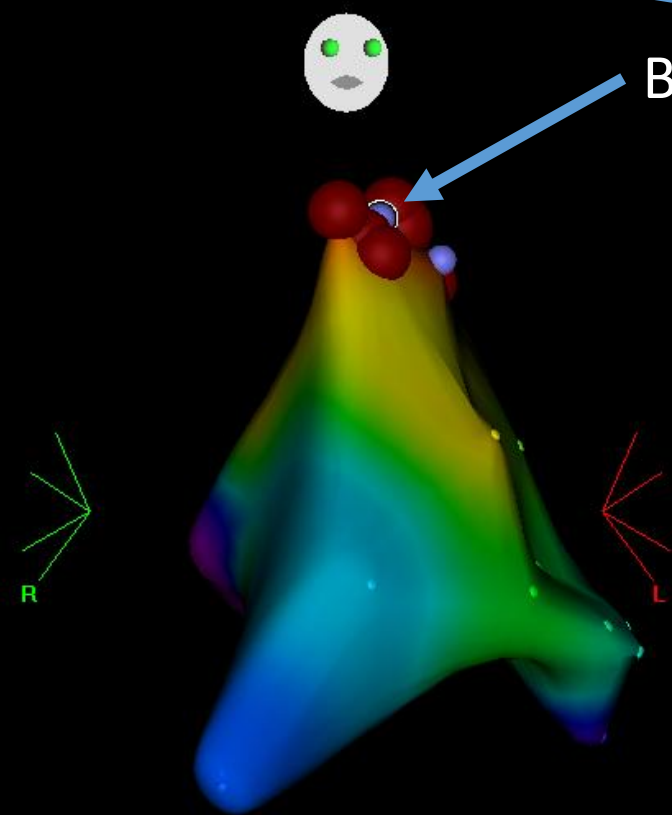
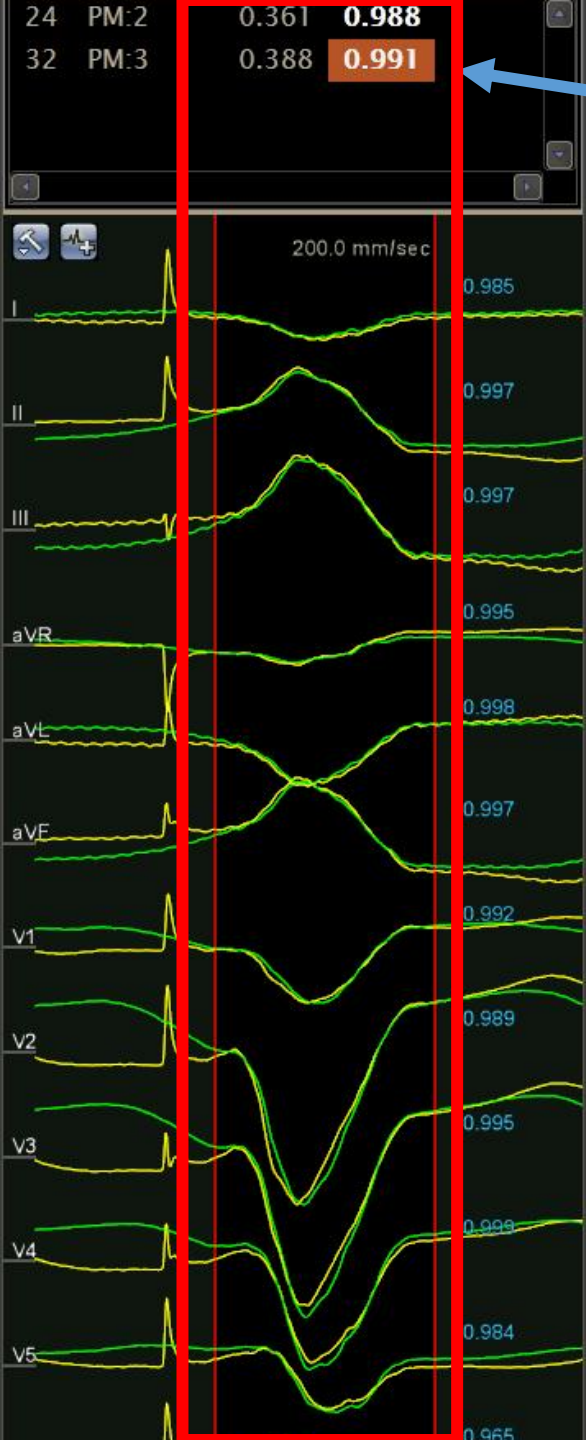
*Epicardial scar
LVEF: 47%,
LVEDV: 225 ml*



Clinical VT

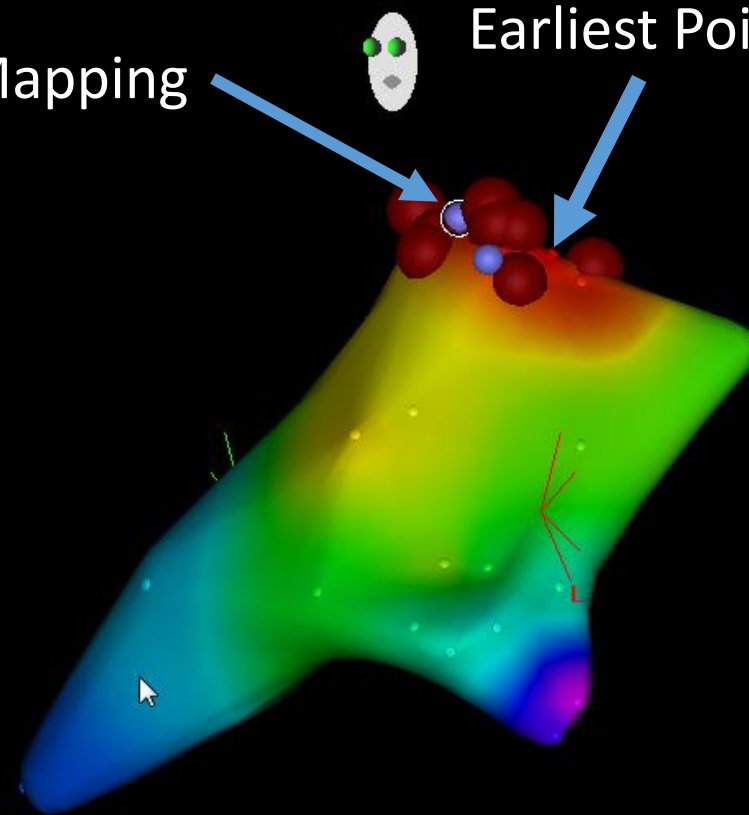
CL: 330 ms
QRSd: 155 ms





RAO

Best Pace Mapping



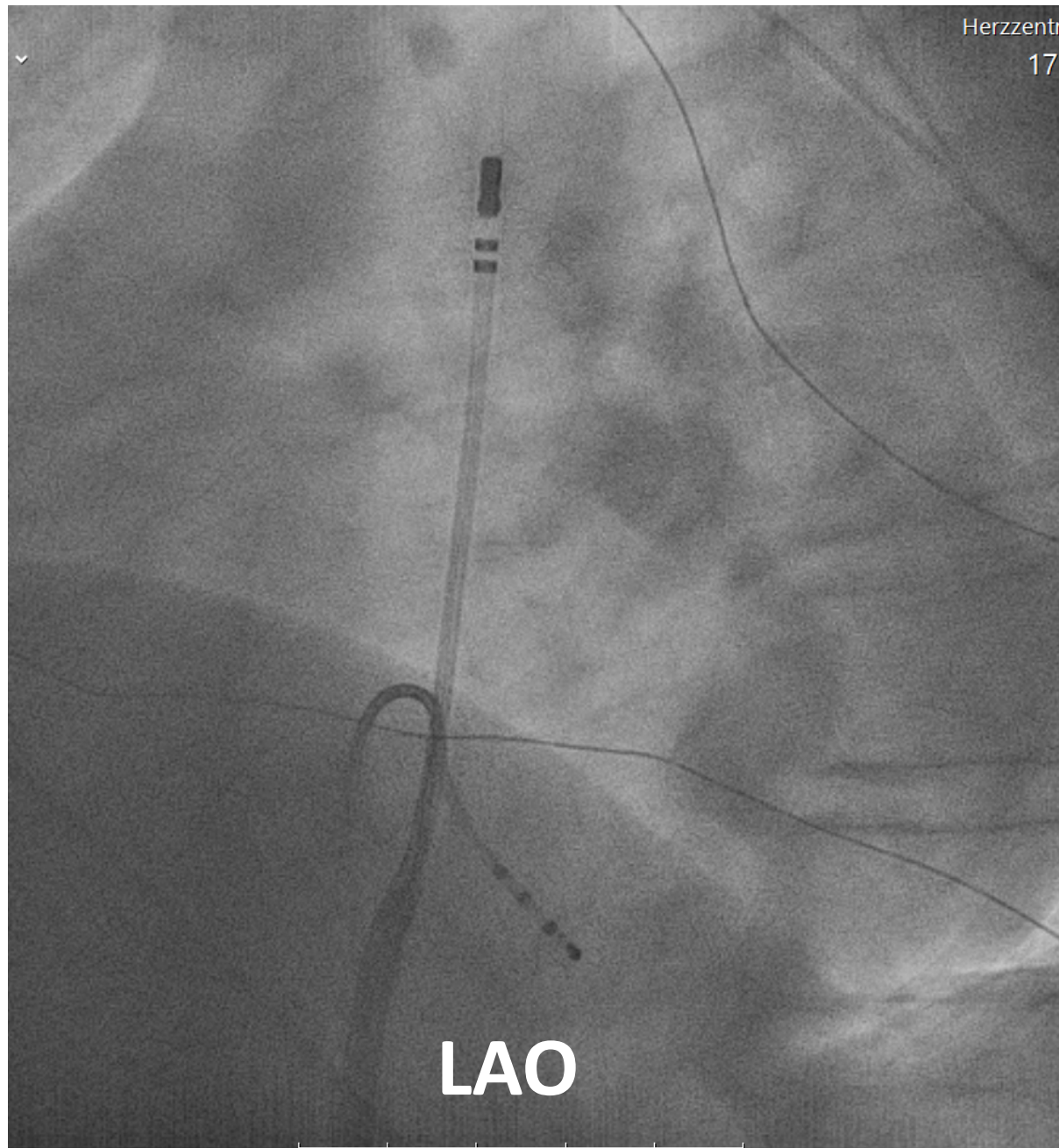
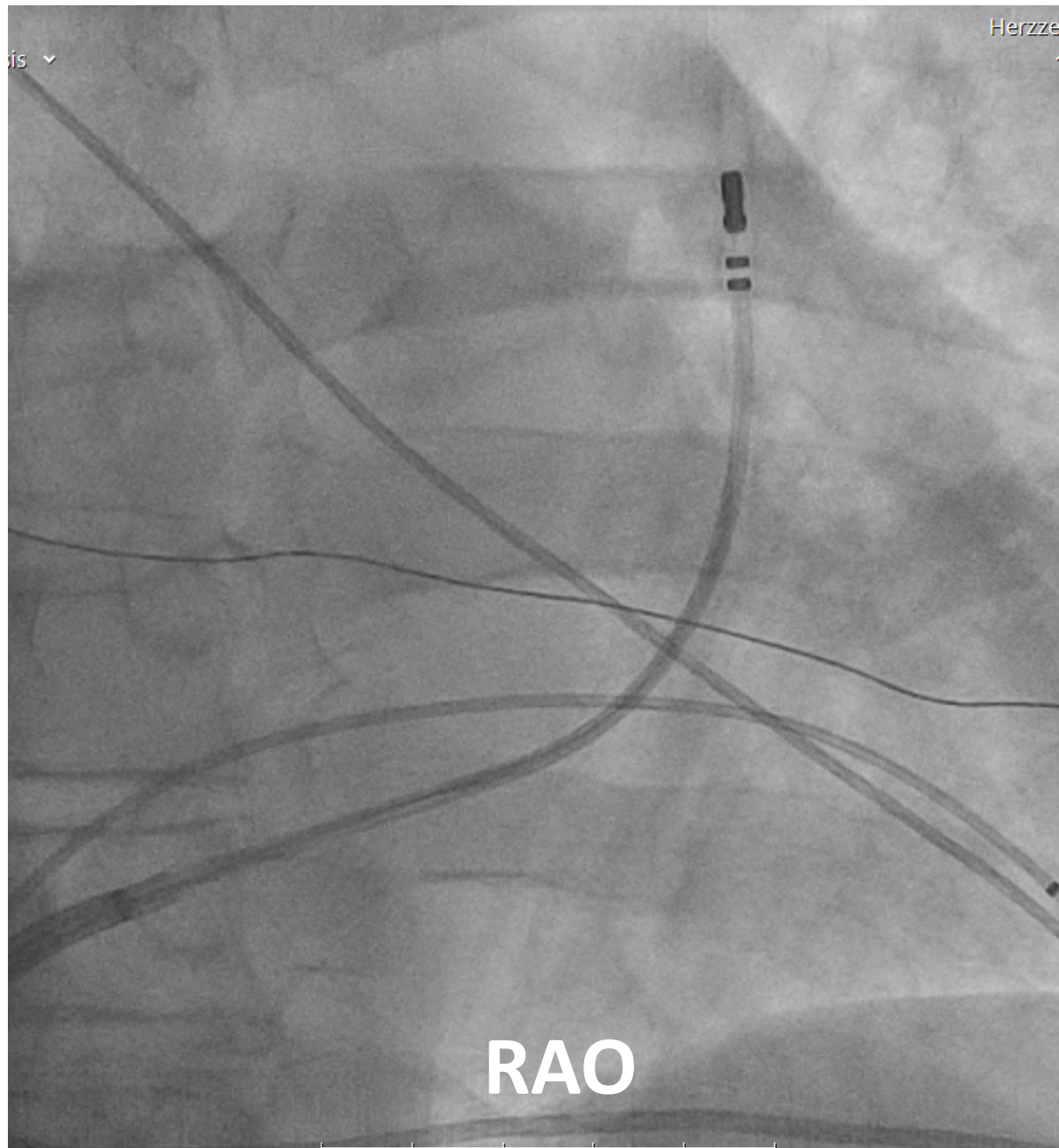
LAO

RAO

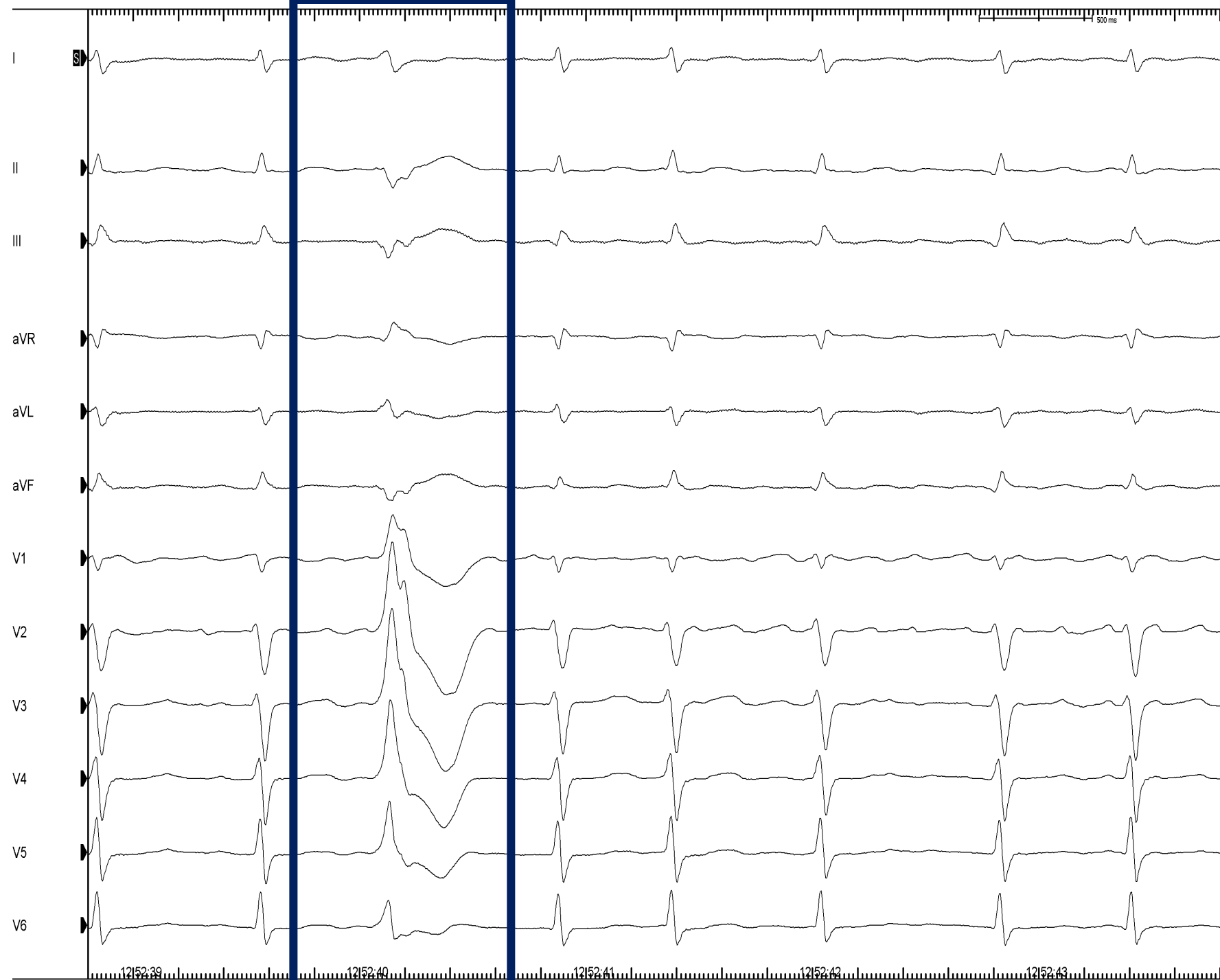
LAO

0.65

0.65



Spontaneous
PVC: scar
associated



Conclusion:

- VT was induced spontaneously after Orciprenaline or high rate RV pacing
- VT localized and successfully ablated in RVOT
- No Low-Voltage-Area in RV/RVOT
- During programmed RV/RVOT Stimulation up to 400-S5 no further sustained and/or non sustained VT was inducible
- The patient discharged without ICD
- A catheter ablation of AF is planed

Suggested Reading

Deepak Padmanabhan · Alan Sugrue · Prakriti Gaba · Samuel J Asirvatham

Department of Cardiovascular Sciences, Mayo Clinic, Rochester, USA

Outflow tract ventricular arrhythmias

Electrocardiographic features in relation to mapping and ablation

Herzschrittmacherther Elektrophysiol. 2017 Jun;28(2):177-186