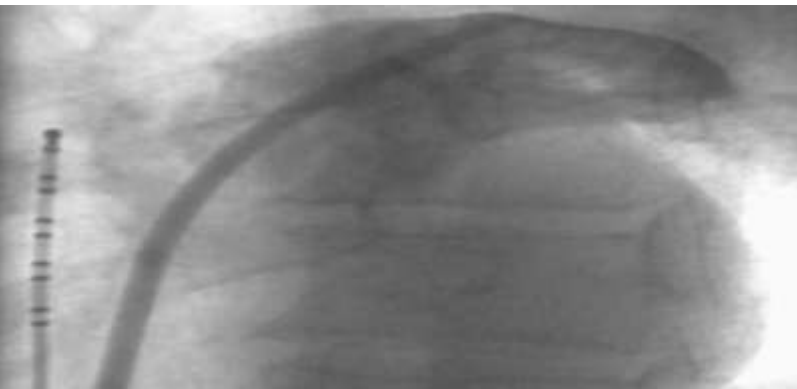


Micro-reentry in dilated left upper pulmonary veins: a distinct clinical AF syndrome?

N F Kelland and S Murray,
Freeman Hospital, Newcastle



Introduction

- AF very common
- 1.5% of people in 60s; >10% of people in 90s
- AF ablation increasingly successful procedure but can be prolonged with serious complications

Introduction

- 3 case series: localised ablation to LUPV yielded SR easily
 - CHADS 2 score 4
 - Multiple comorbidities
 - Poor LV function

Introduction

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 - CHADS 2 score 4
 - Multiple comorbidities
 - Poor LV function

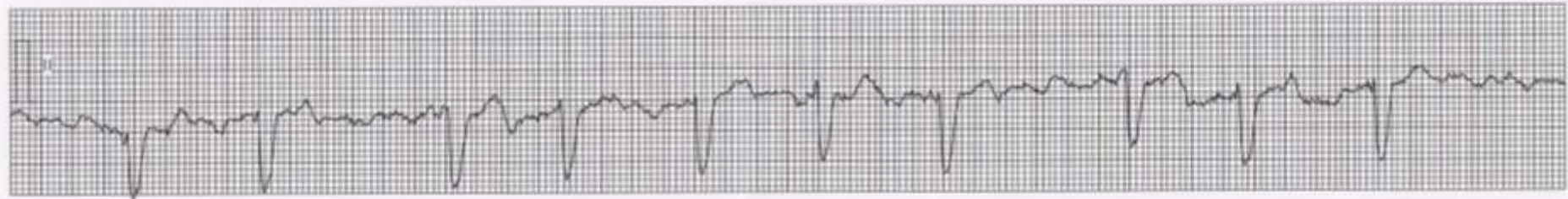
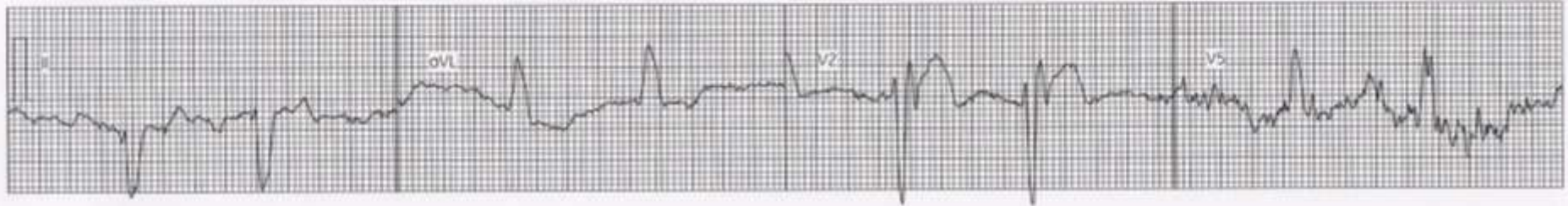
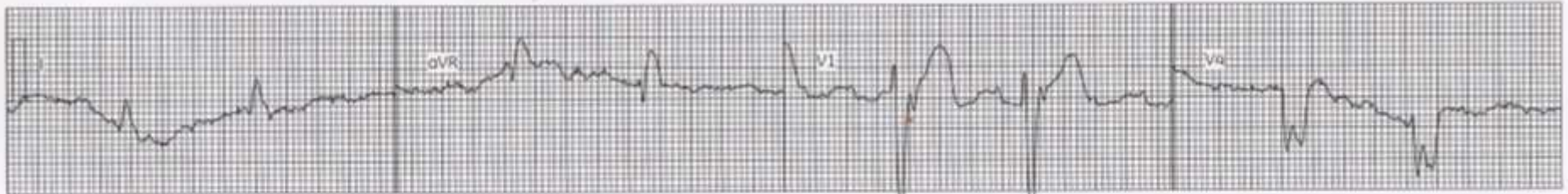


Expectation: PVI/lines/ CFAEs required

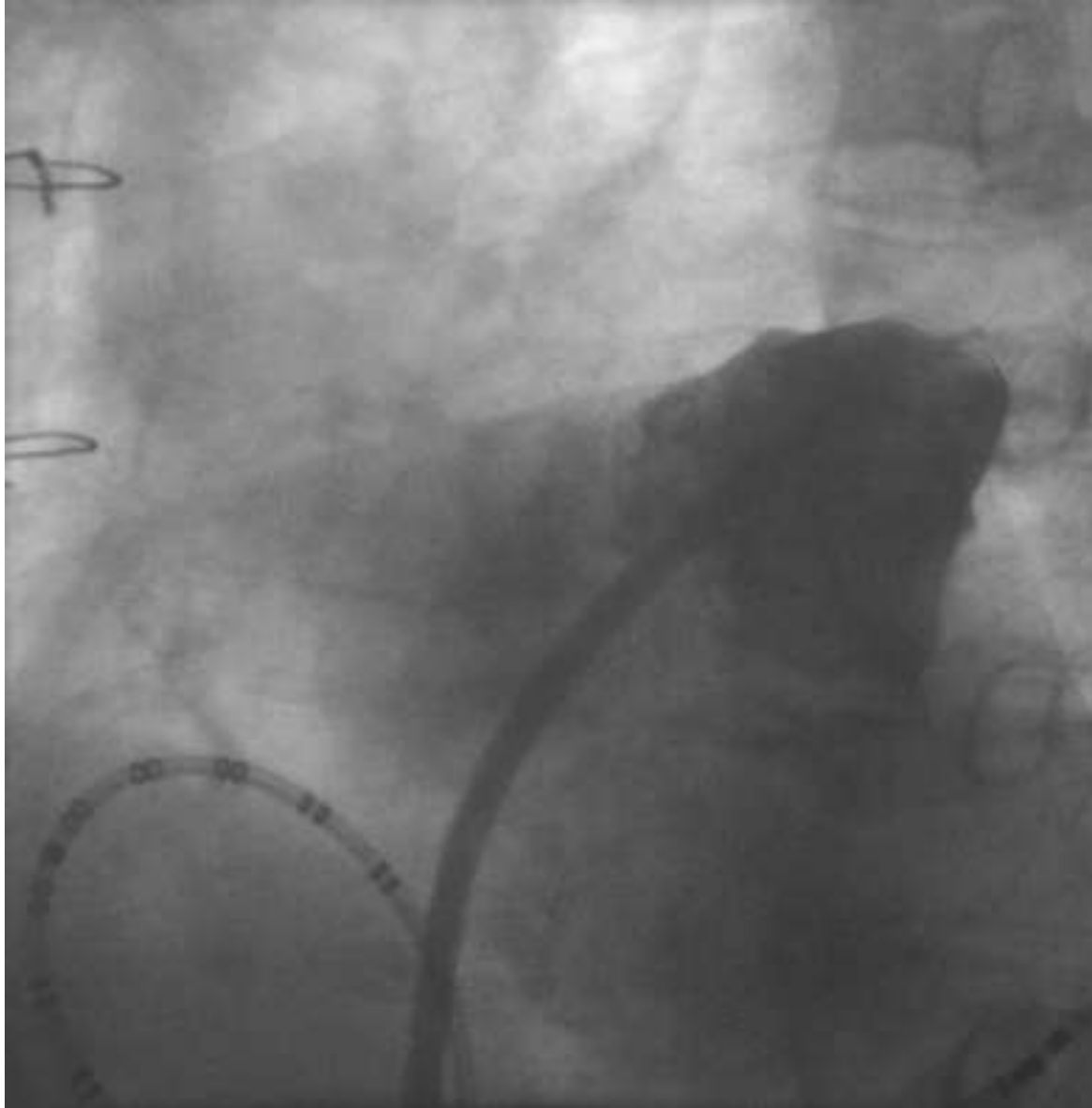
Case 1

- RJ
- 72 yo
- IHD; prev CABG; poor LV function
- TIAs
- Admitted with heart failure and coarse AF

ECG-RJ



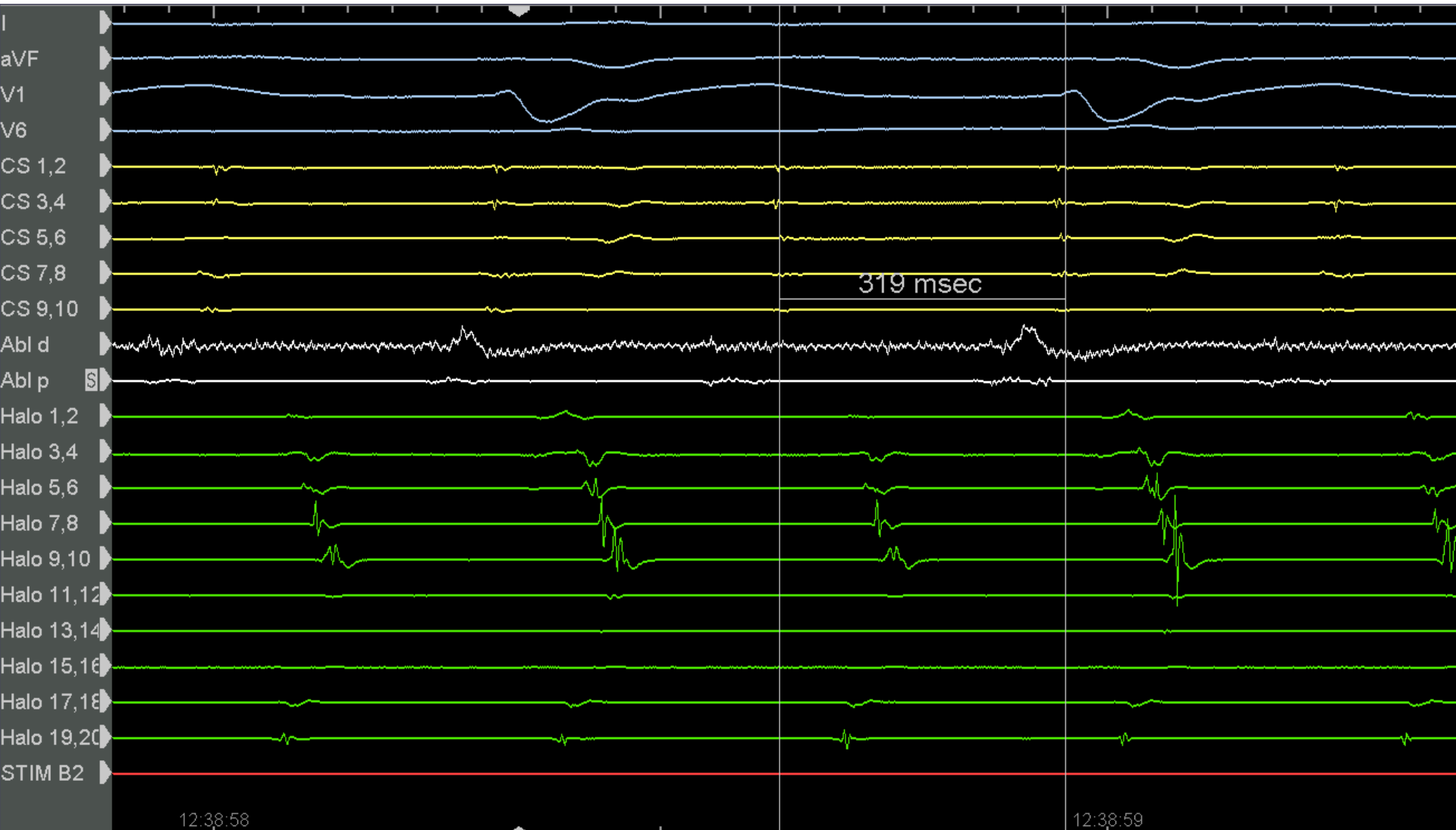
Venogram - RJ



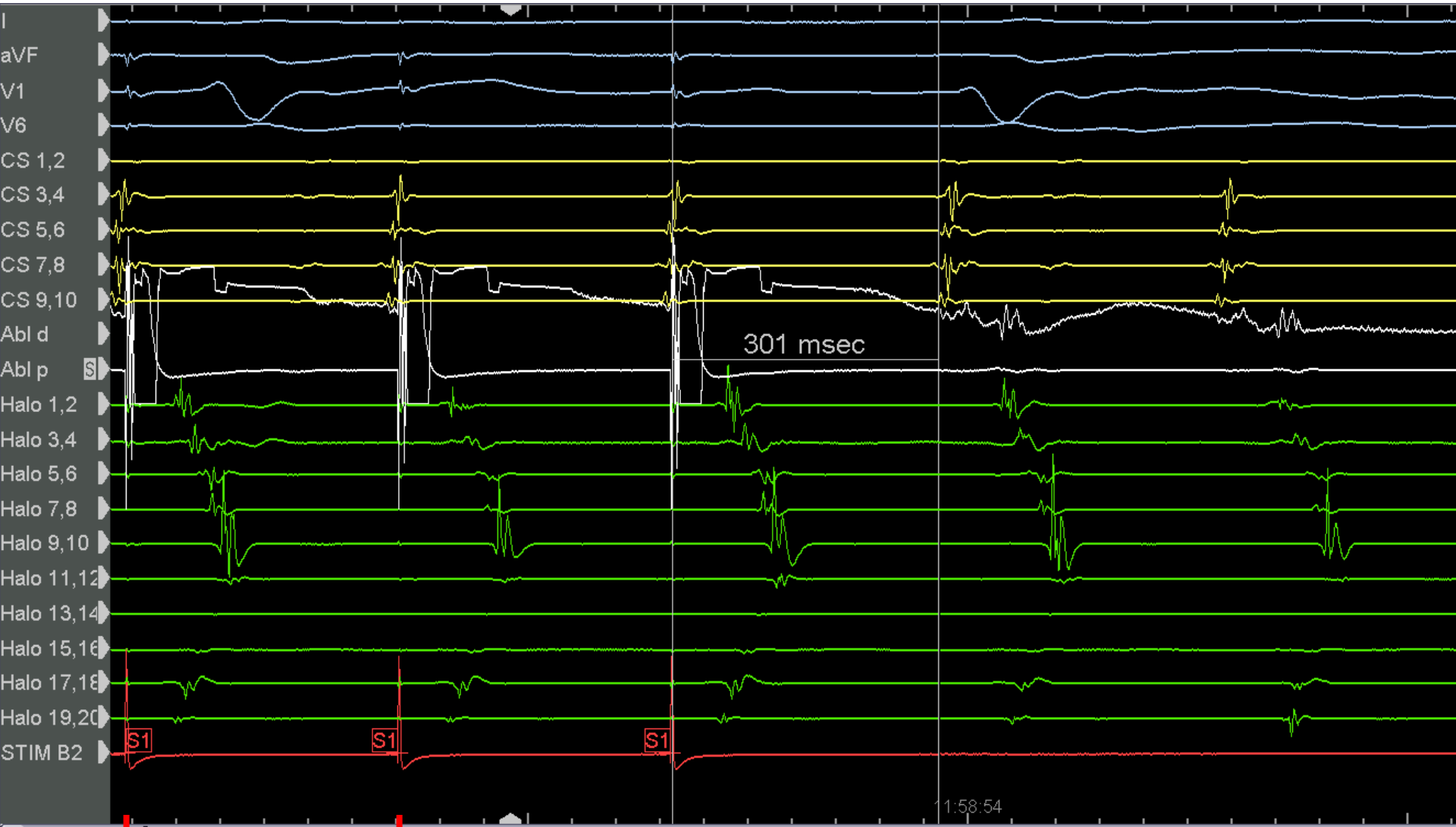
Venogram - RJ



LA tachy - CL 320ms

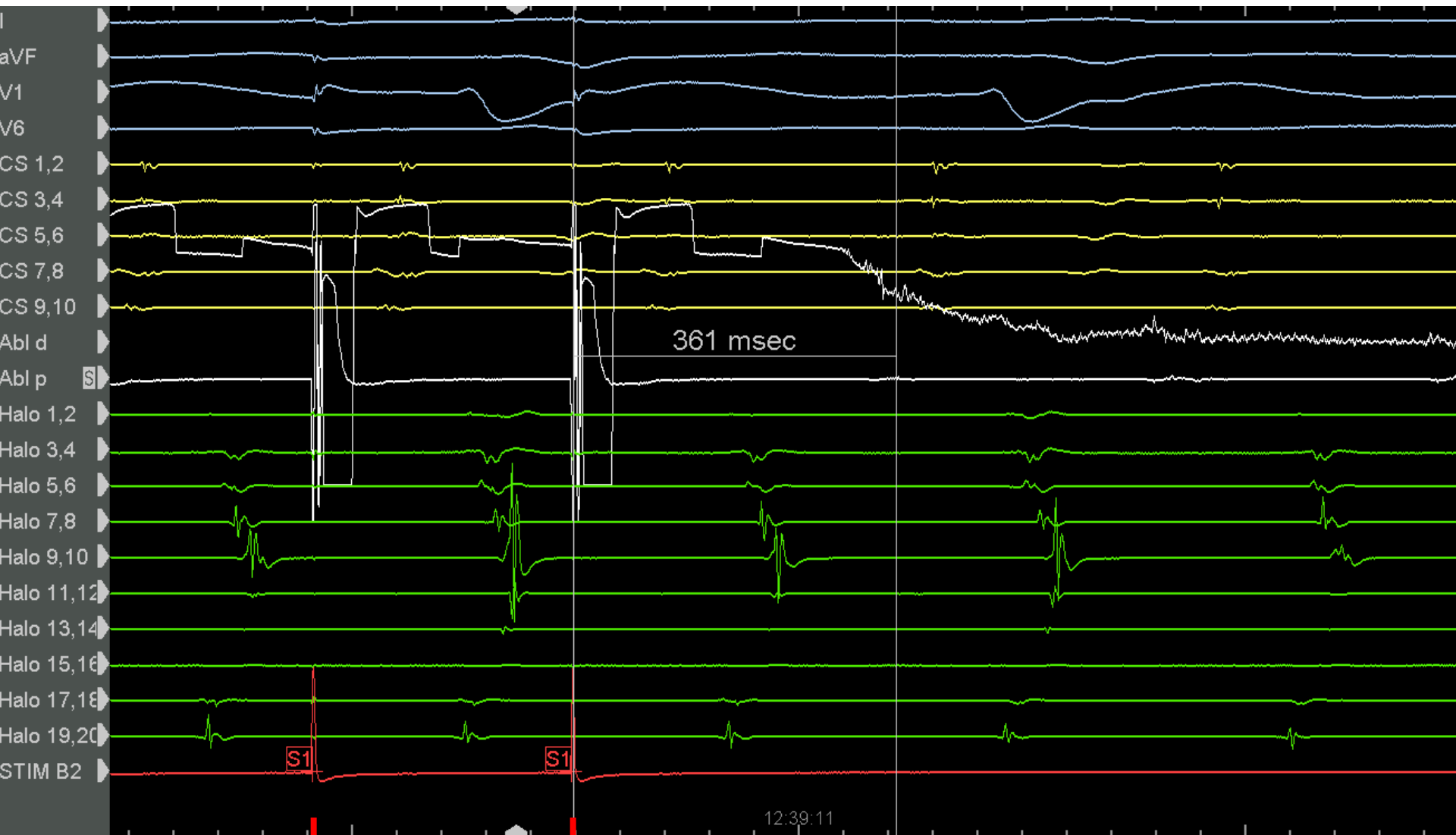


PPI = 300ms



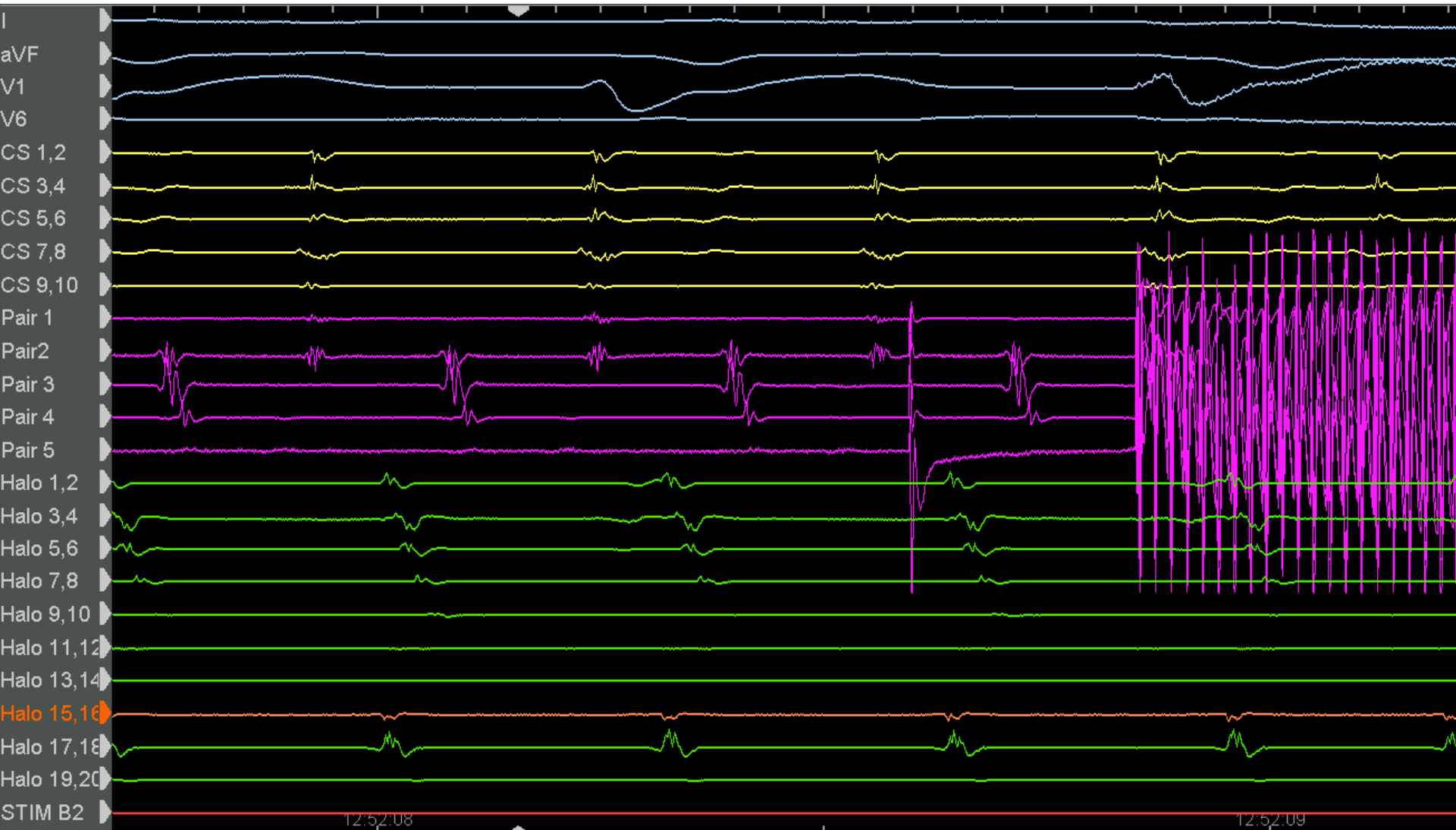
310ms

PPI = 360ms



290ms

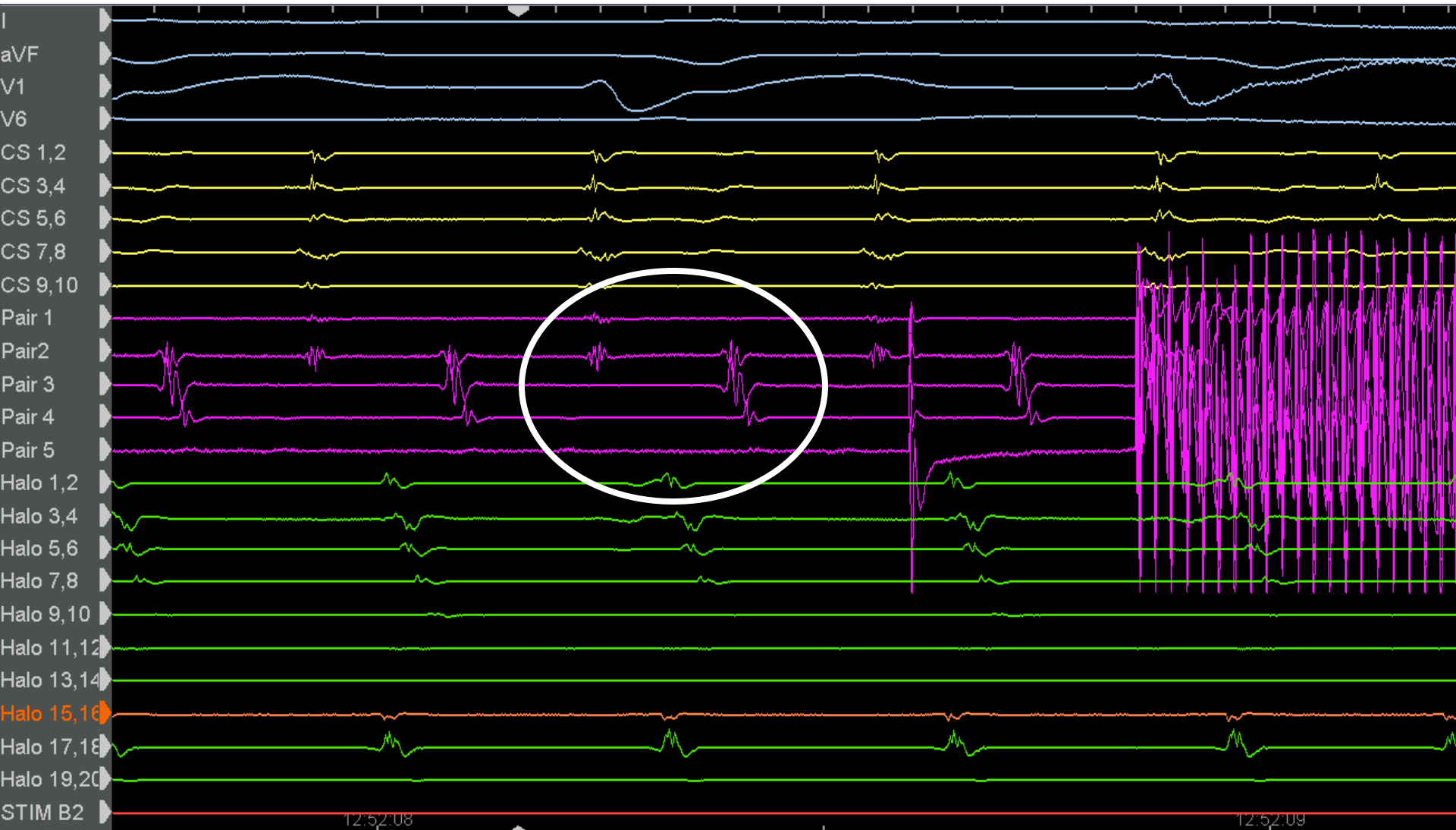
LUPV signal



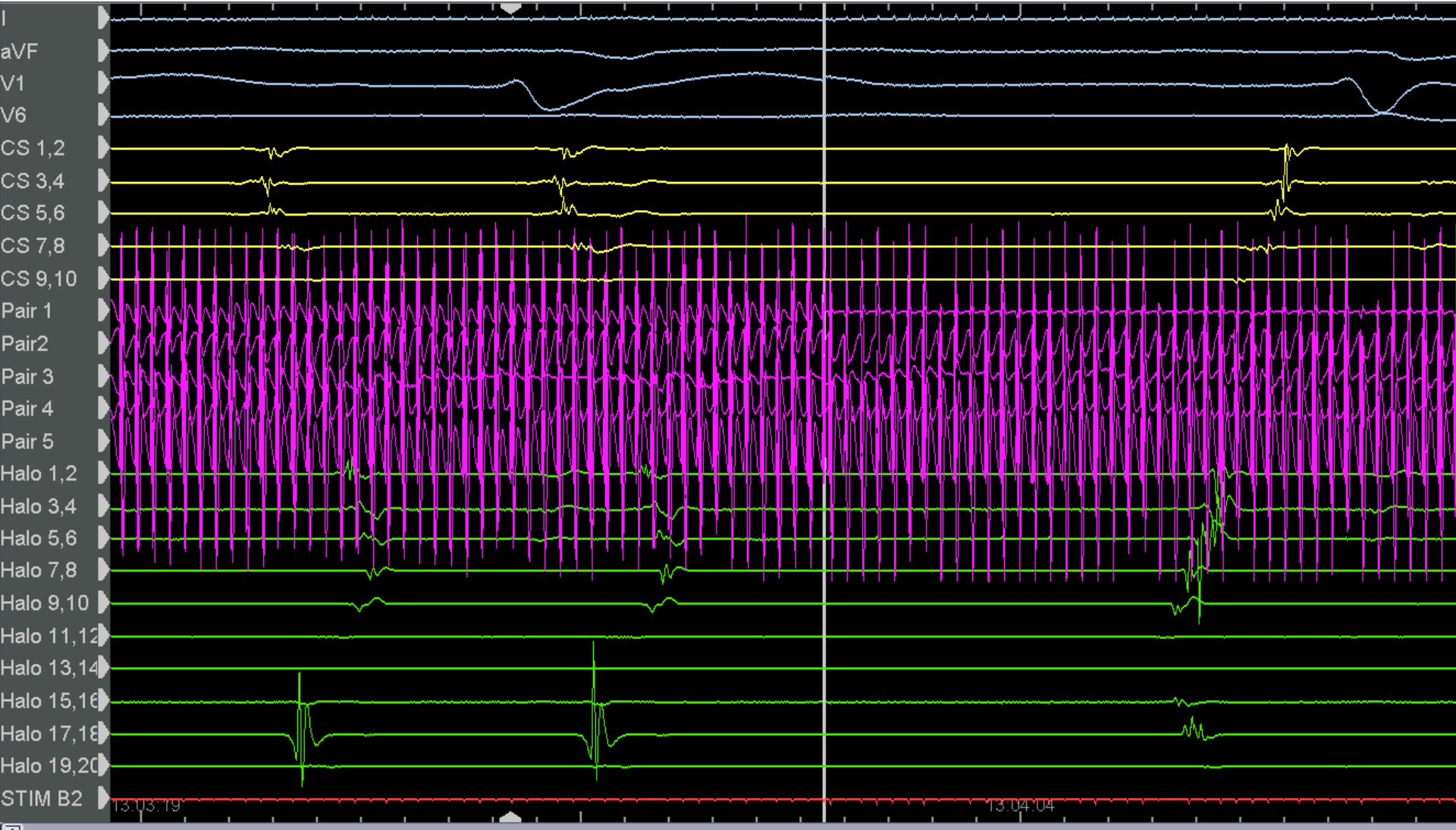
12:52:08

12:52:09

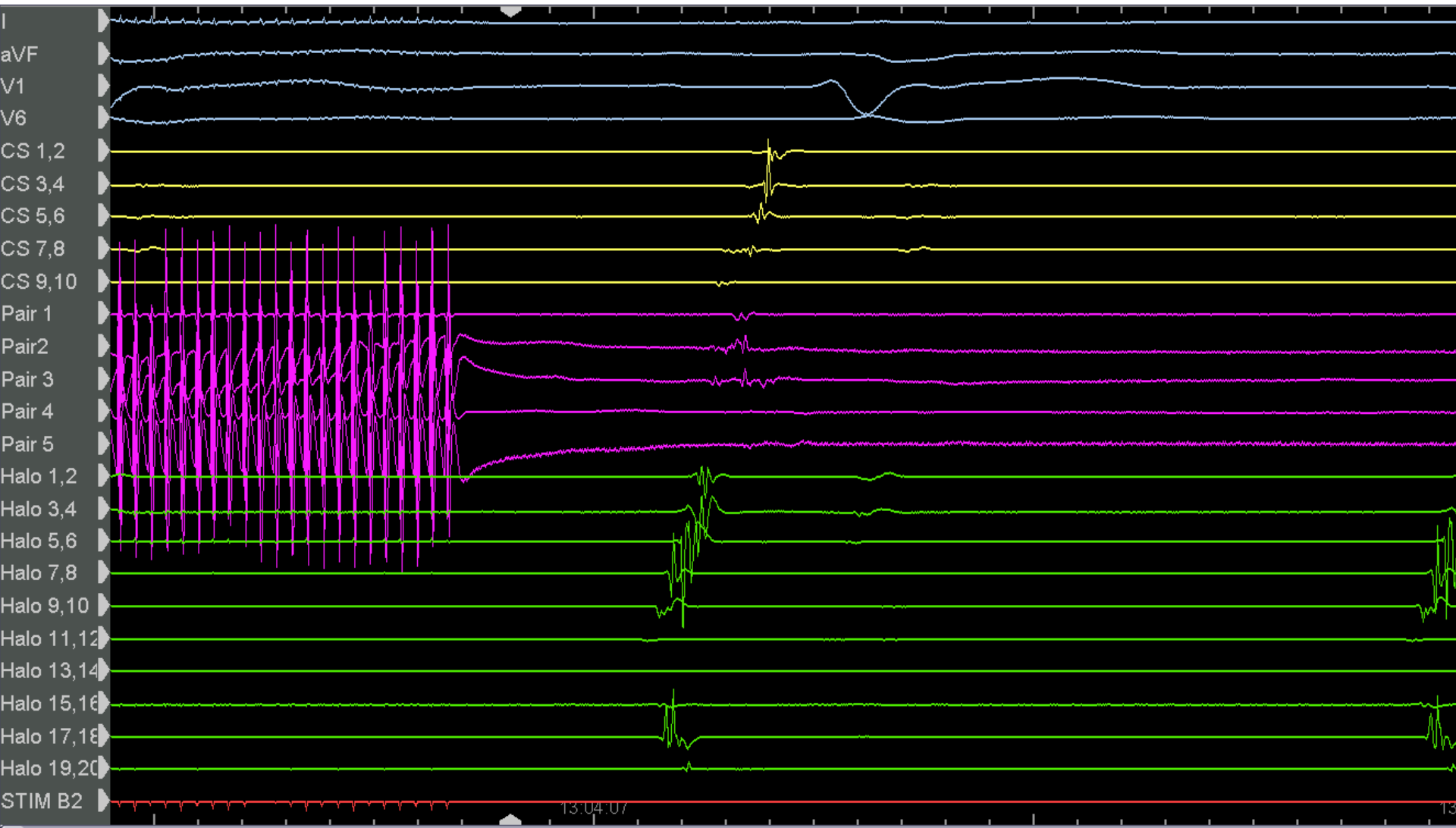
LUPV signal



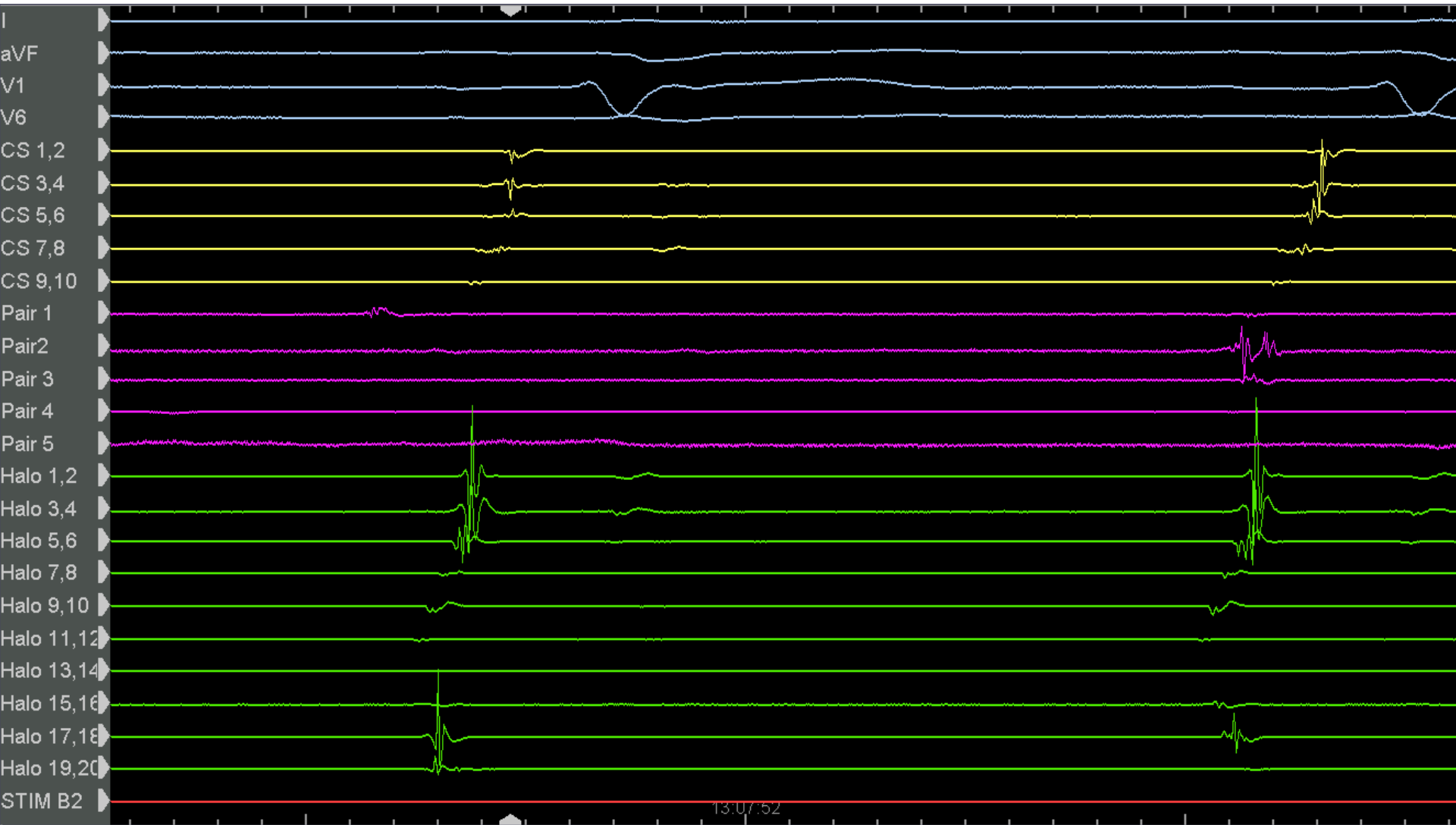
Tachycardia stopped



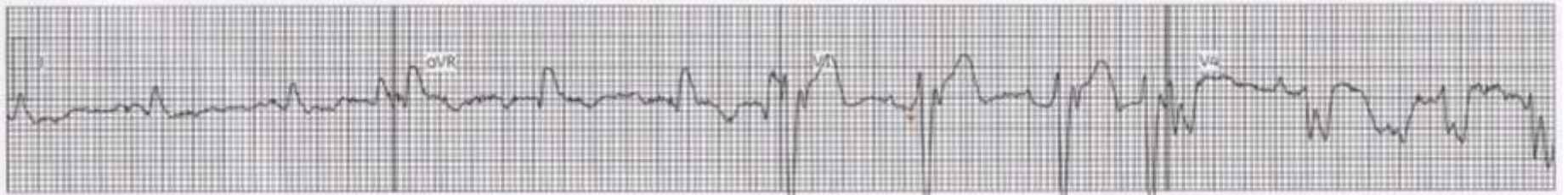
Post ablation



Final LUPV signal



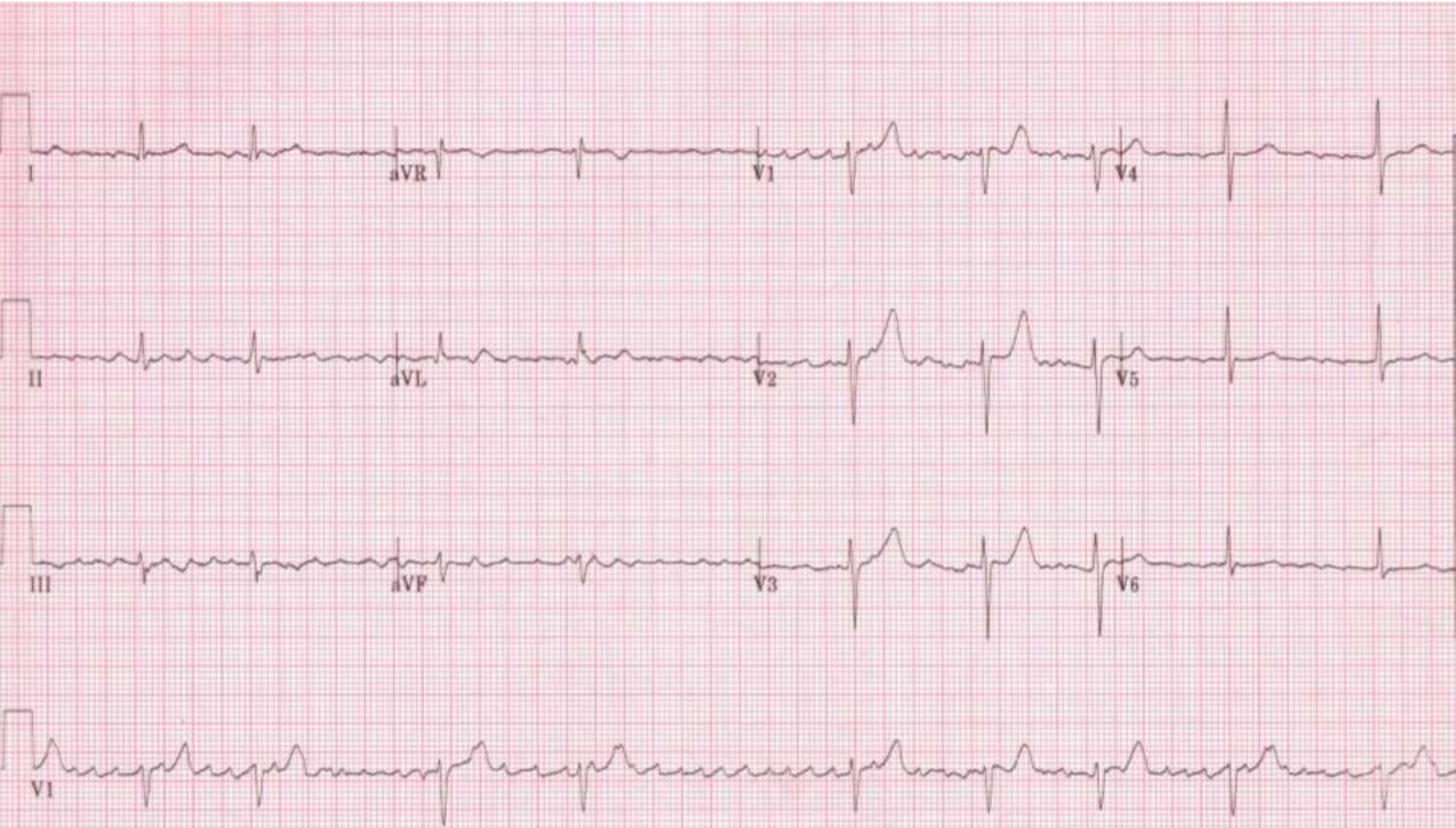
ECG-RJ



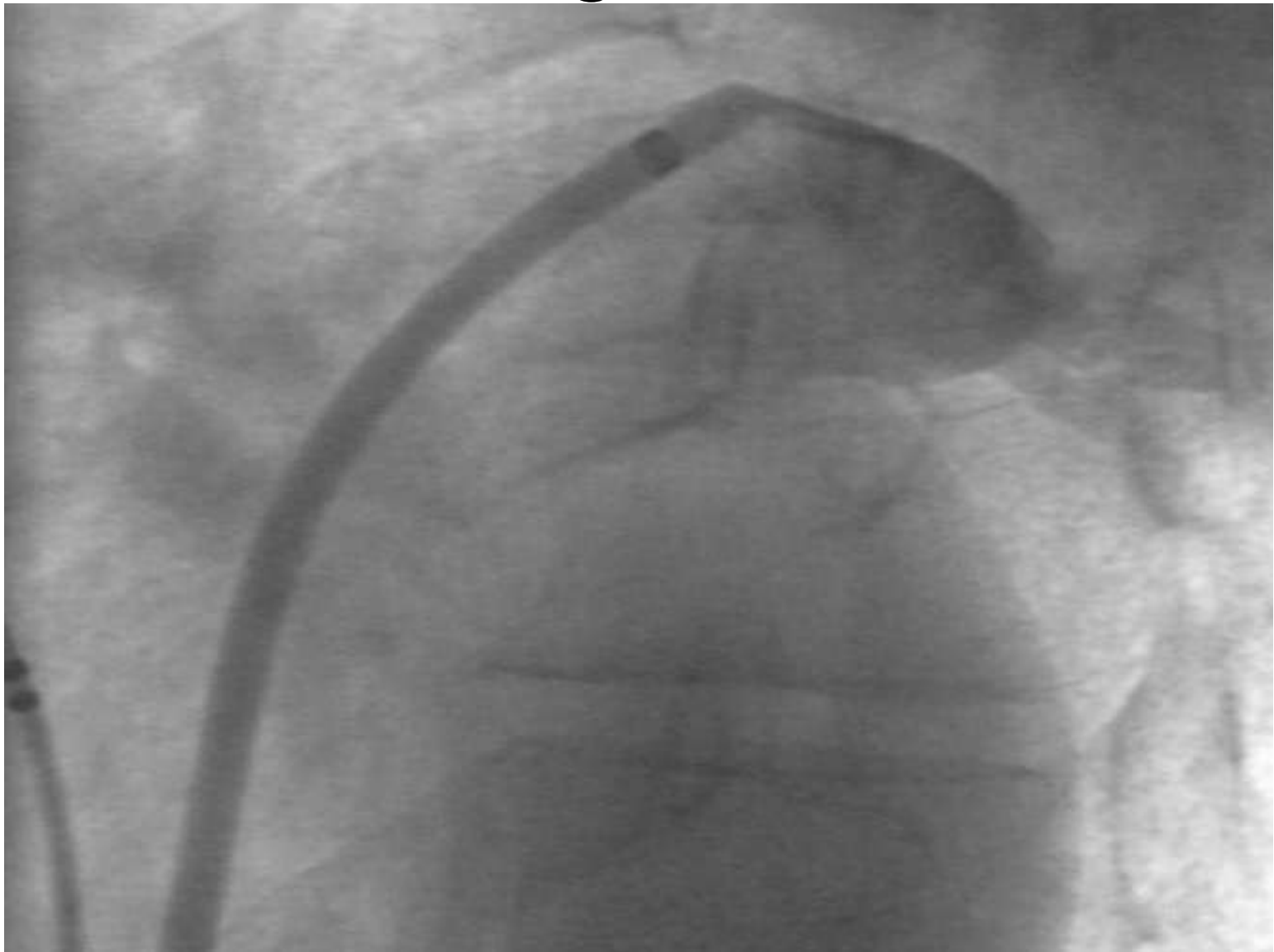
Case 2

- JC
- 62 yo man
- Lethargy and palp
- left cerebellar CVA 2007
- pAF in 2007; spont CV to SR
- Now permanent AF

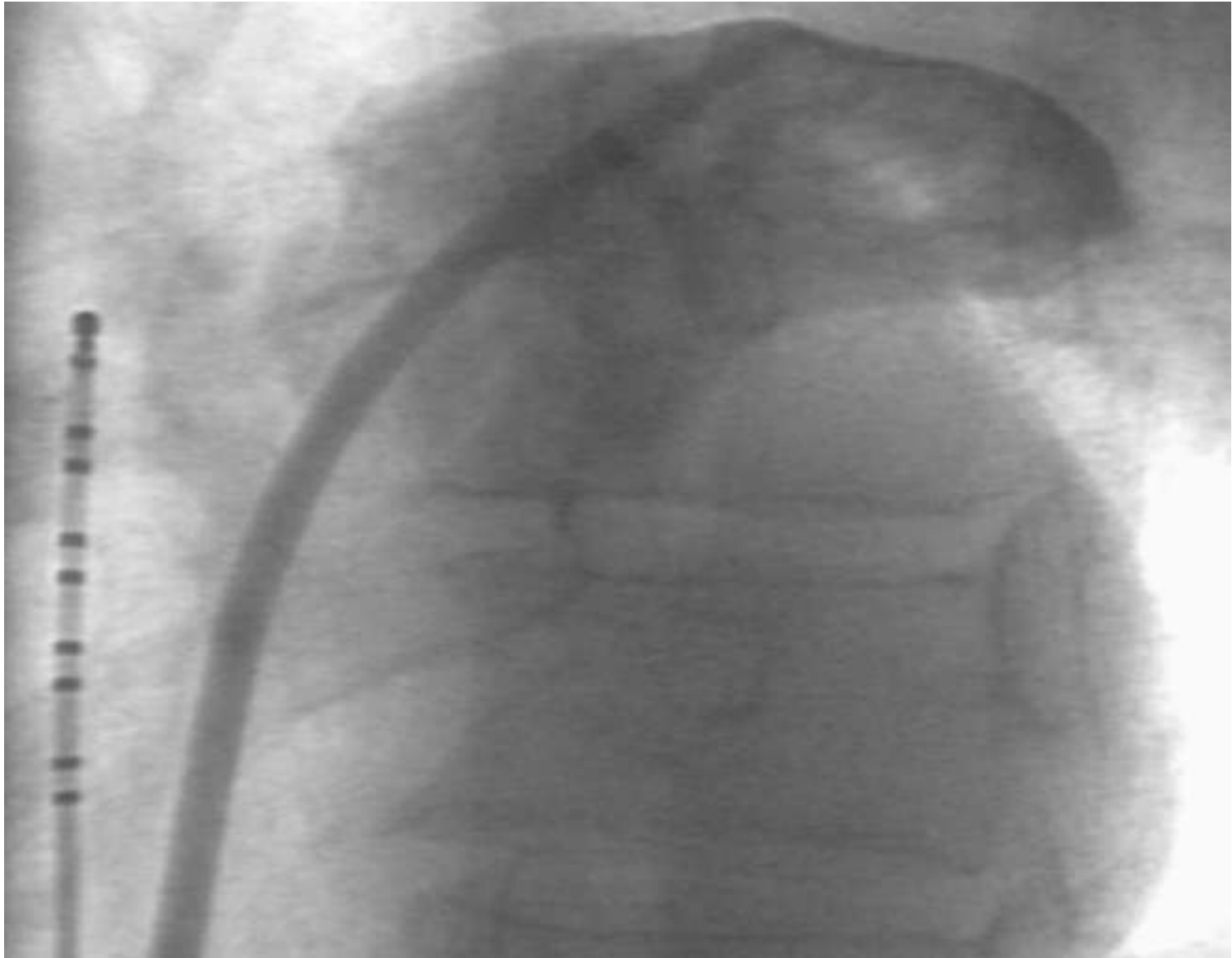
ECG-JC



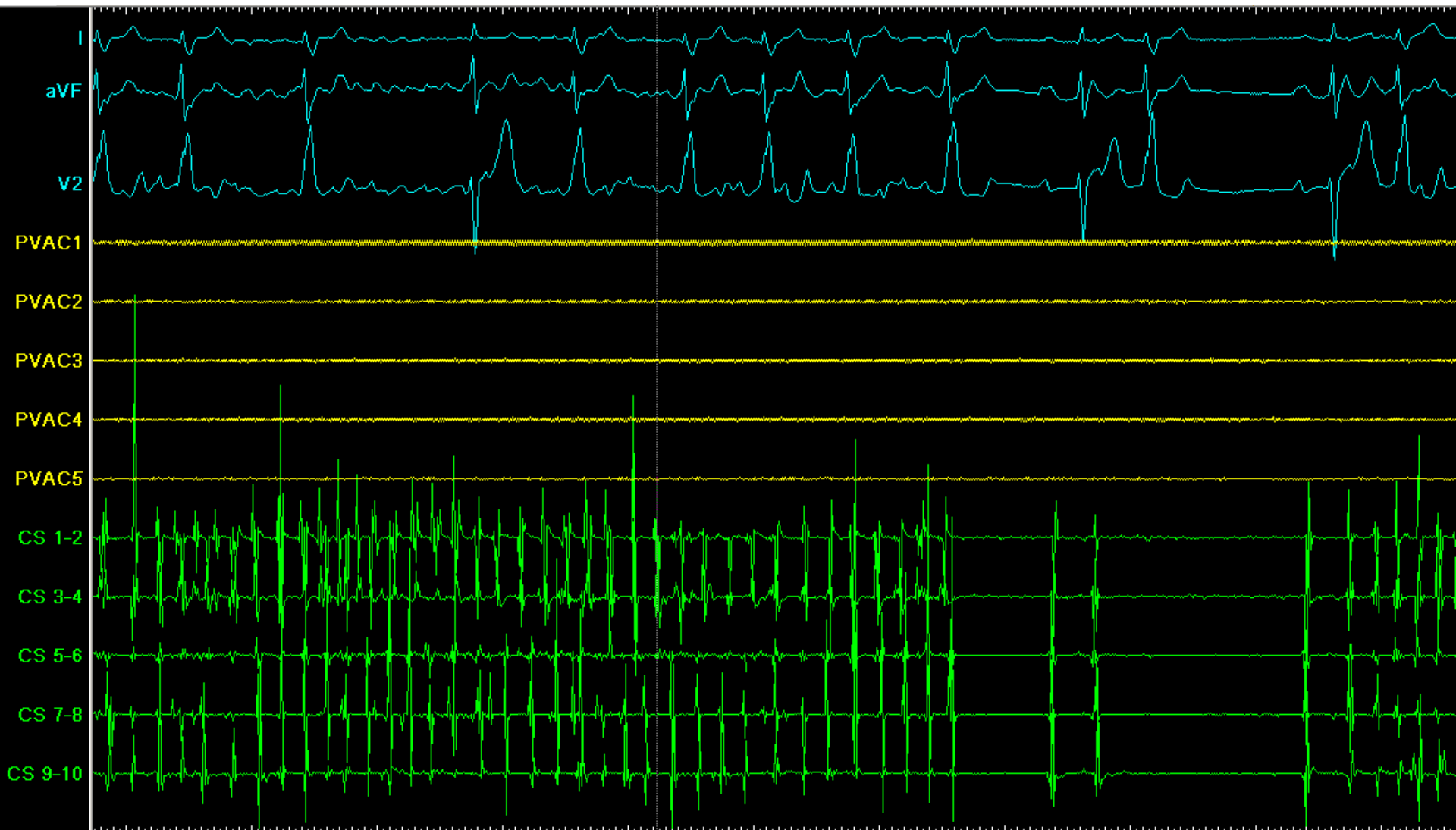
Venogram - JC



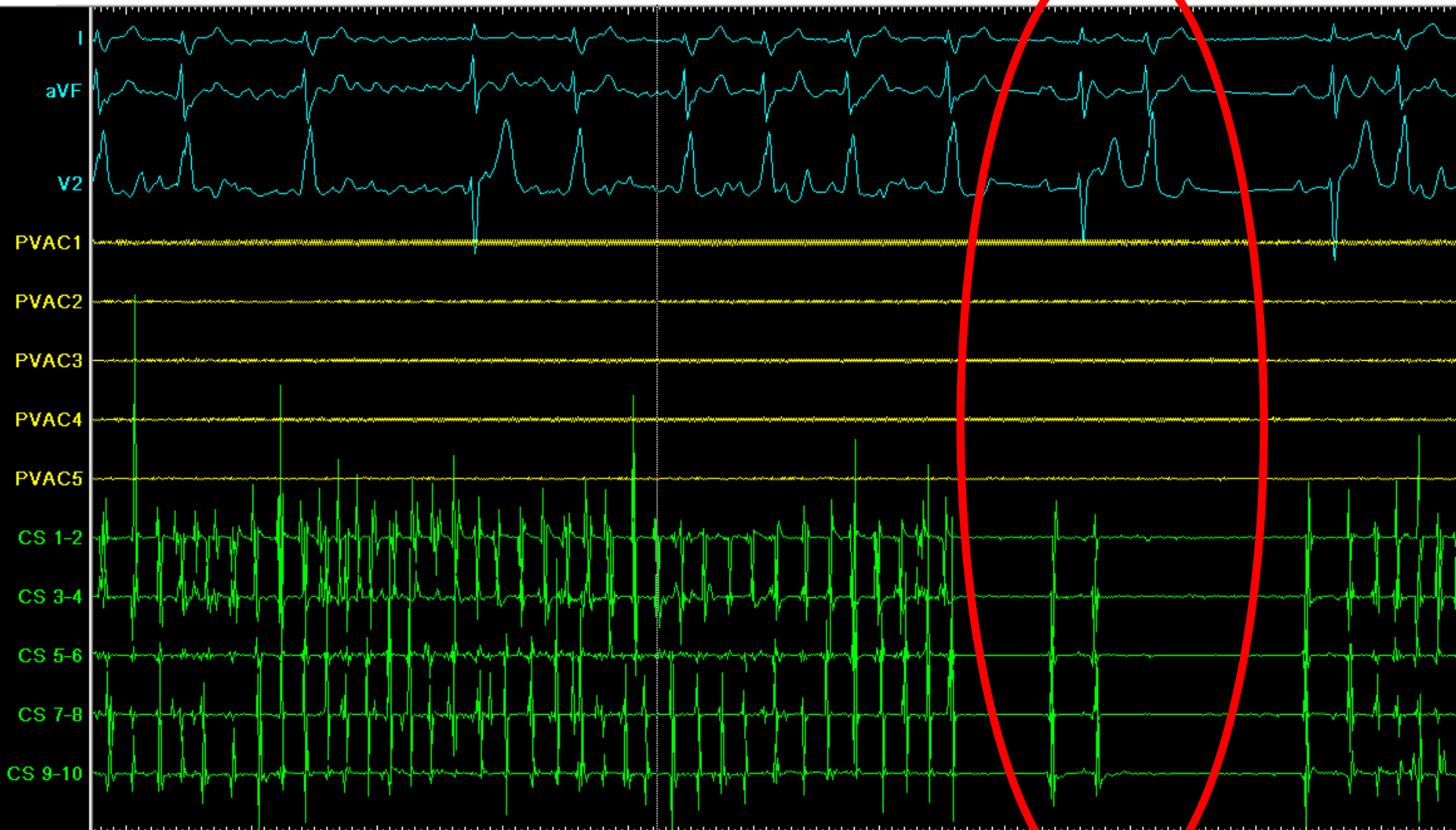
Venogram - JC



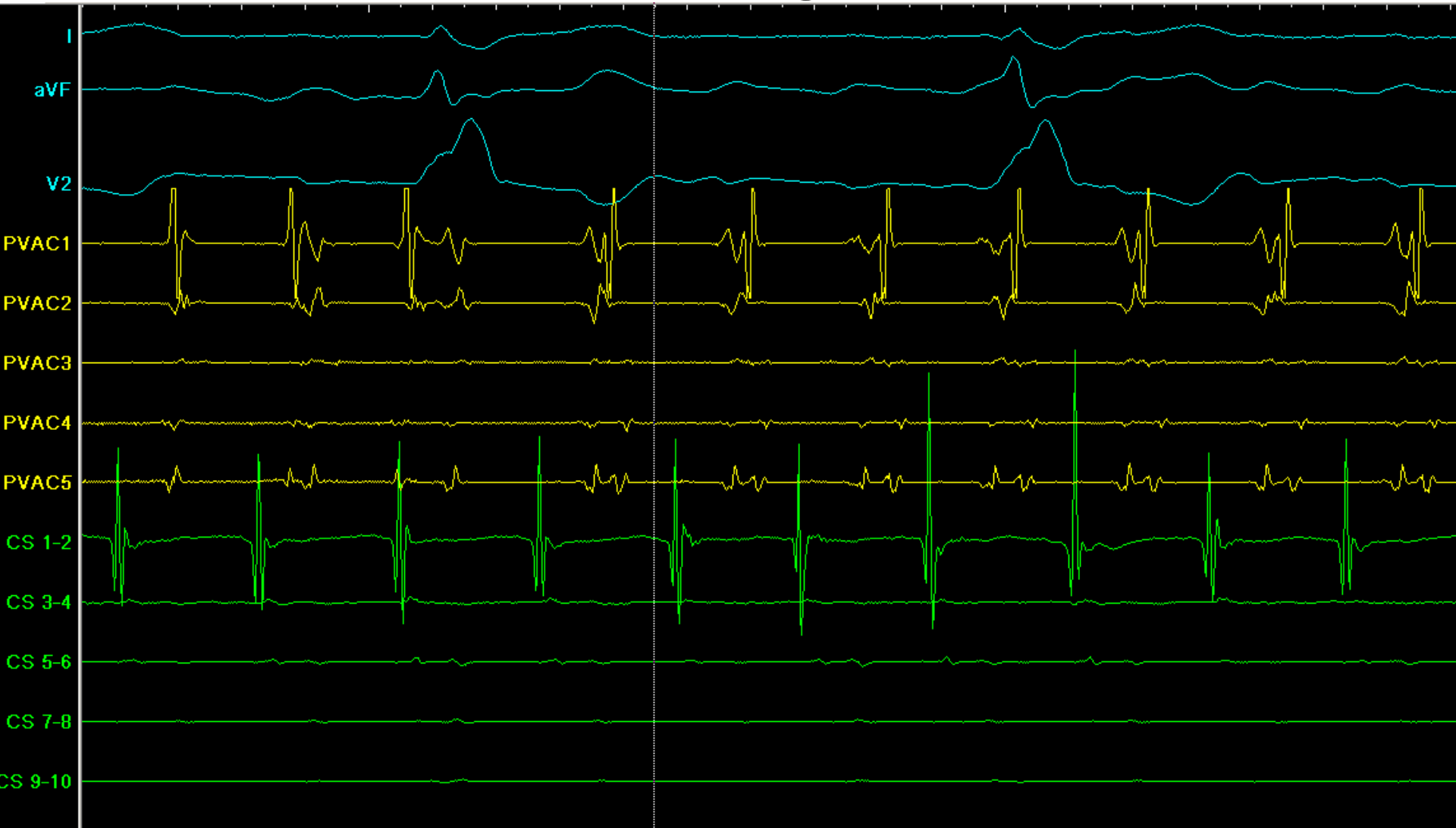
Sinus beat



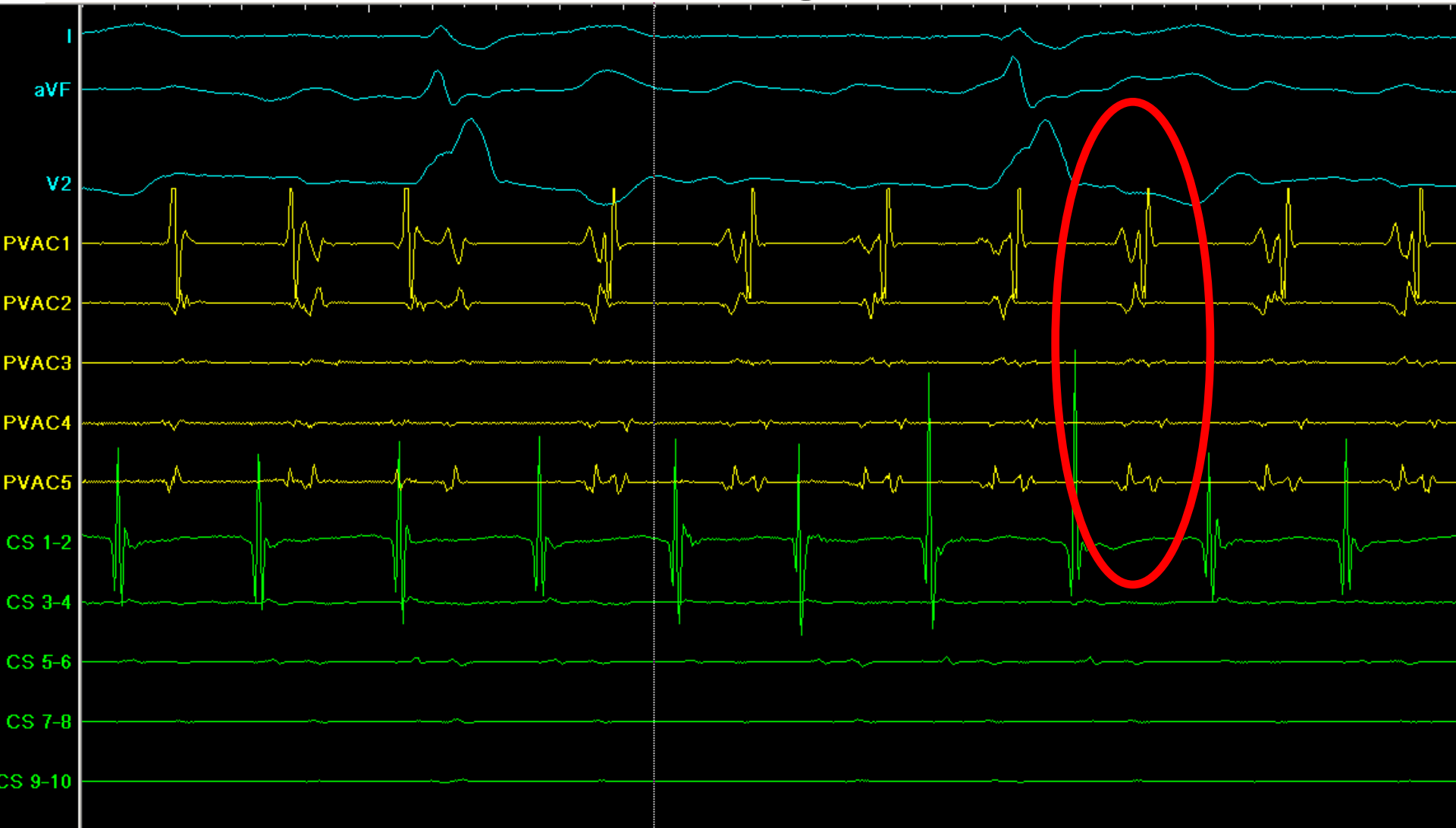
Sinus beat



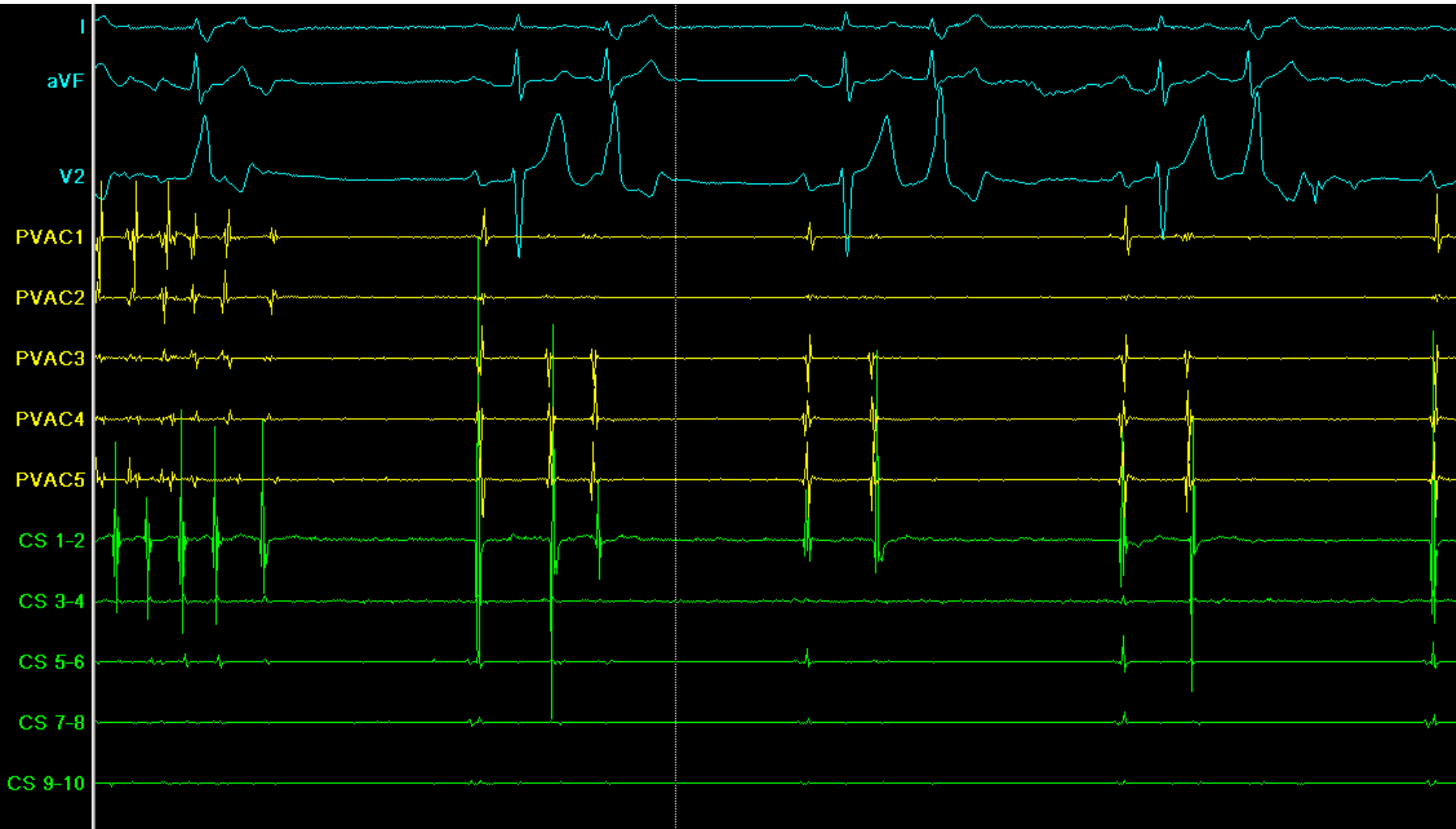
LUPV signals



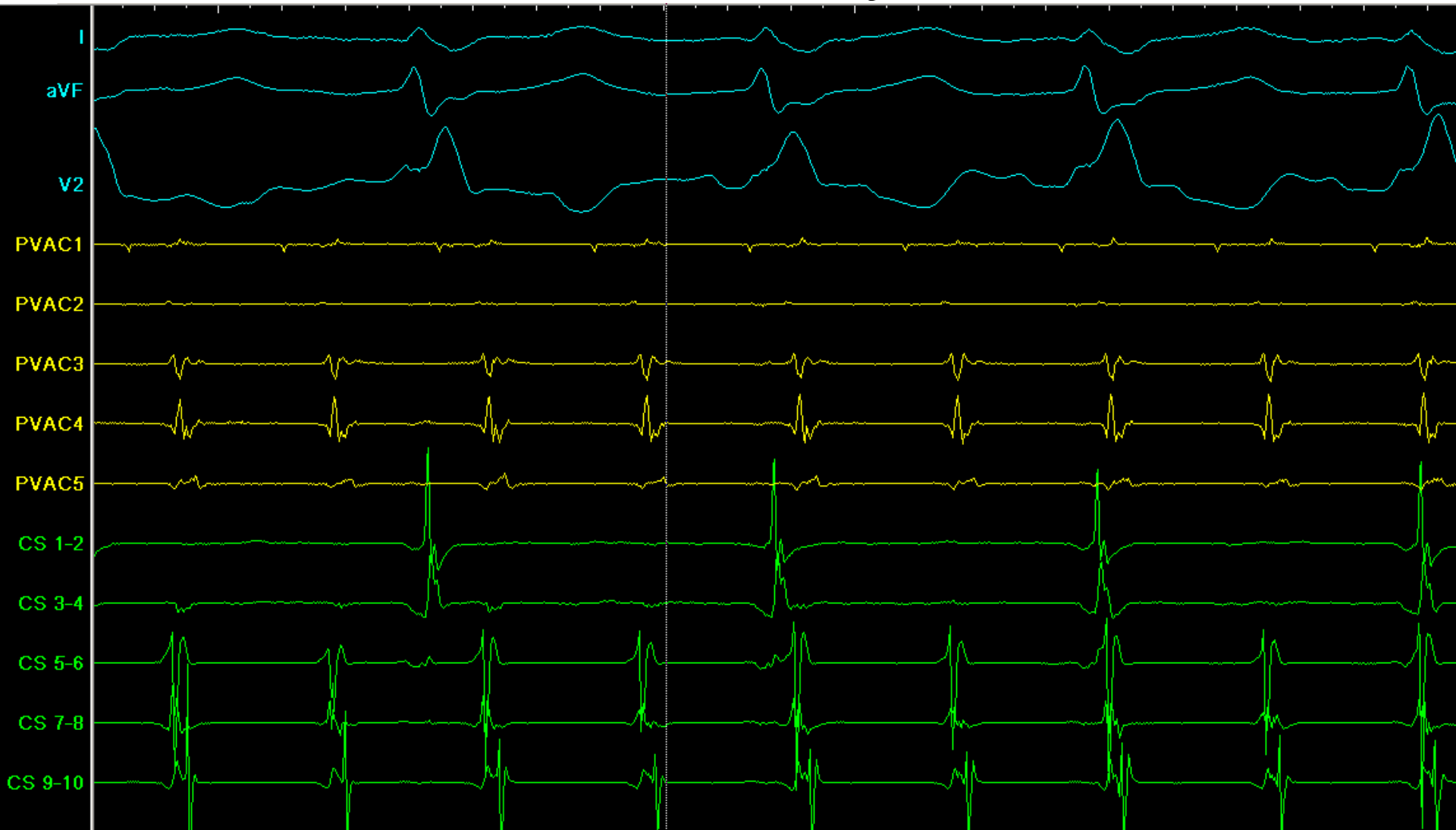
LUPV signals



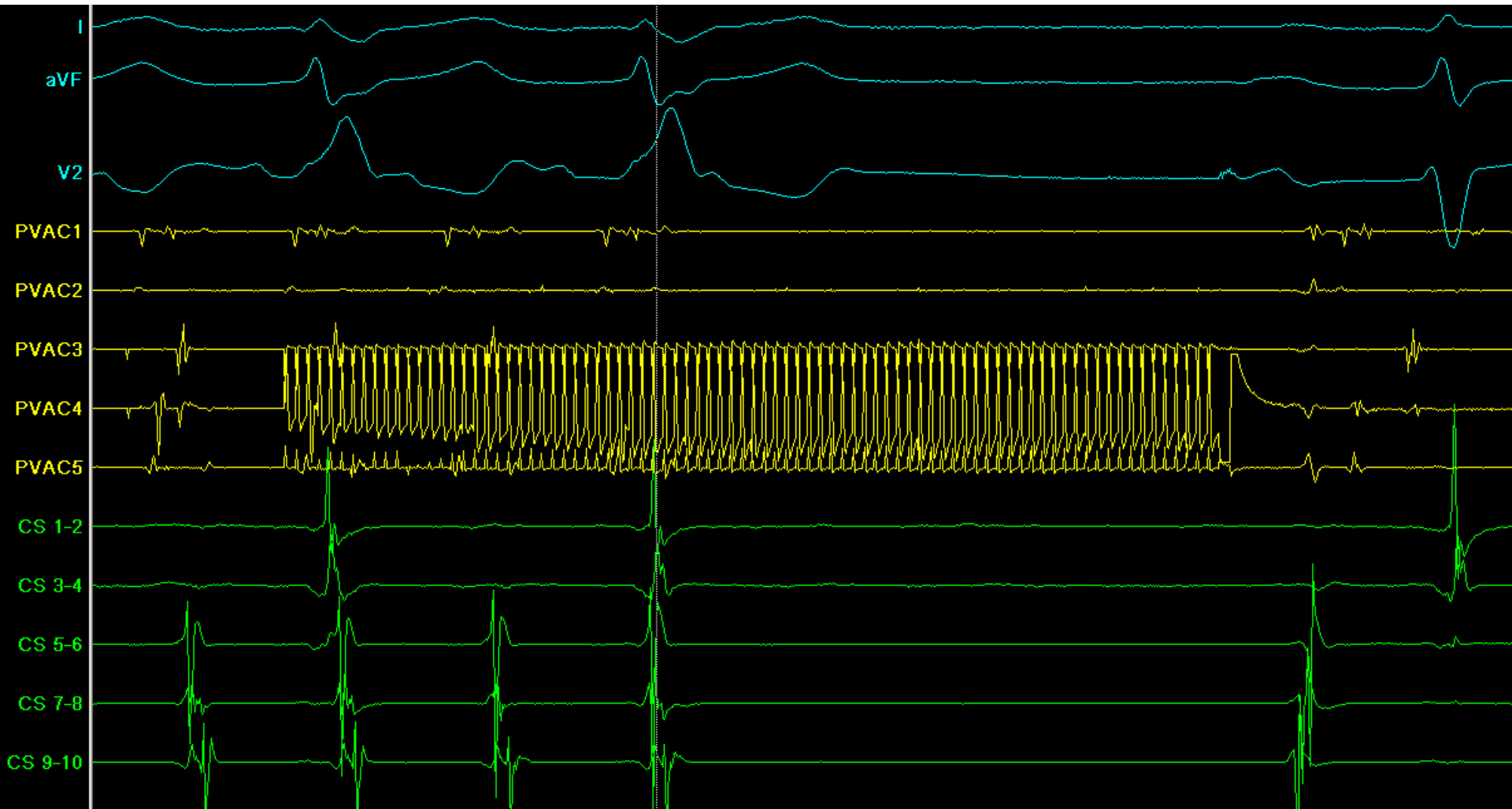
LUPV ectopy



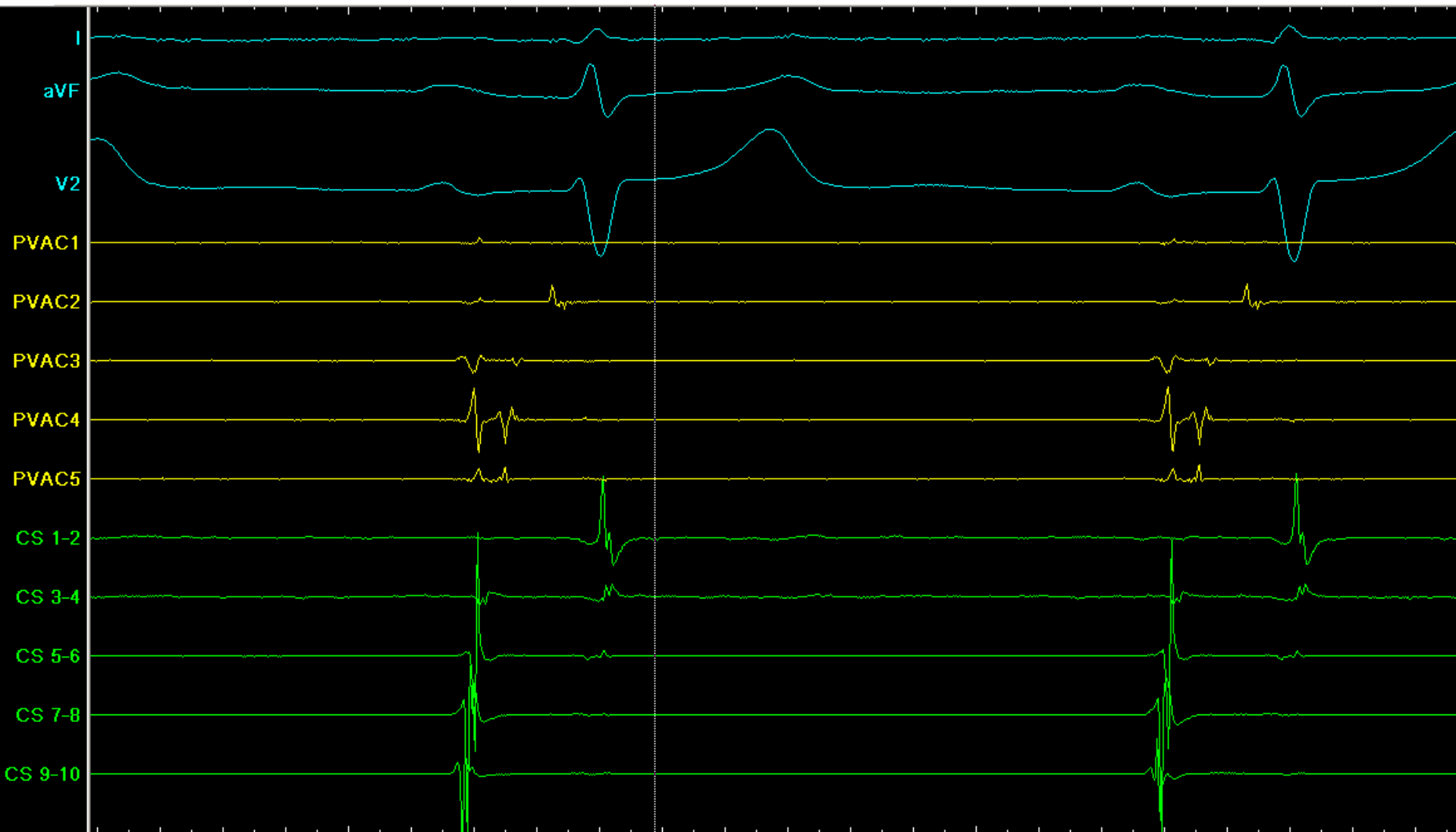
AT induced by burn



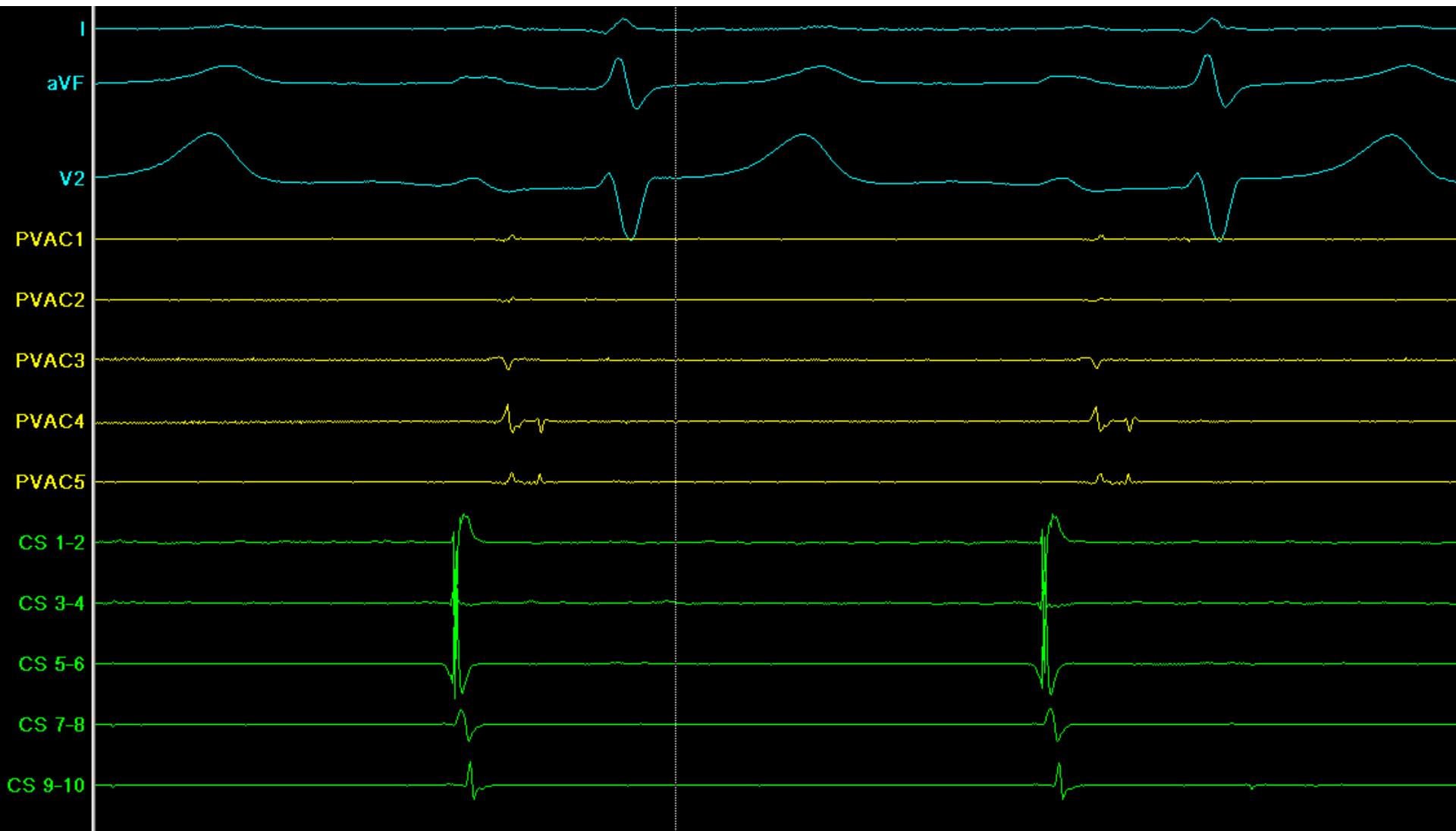
Termination of AT



PVP



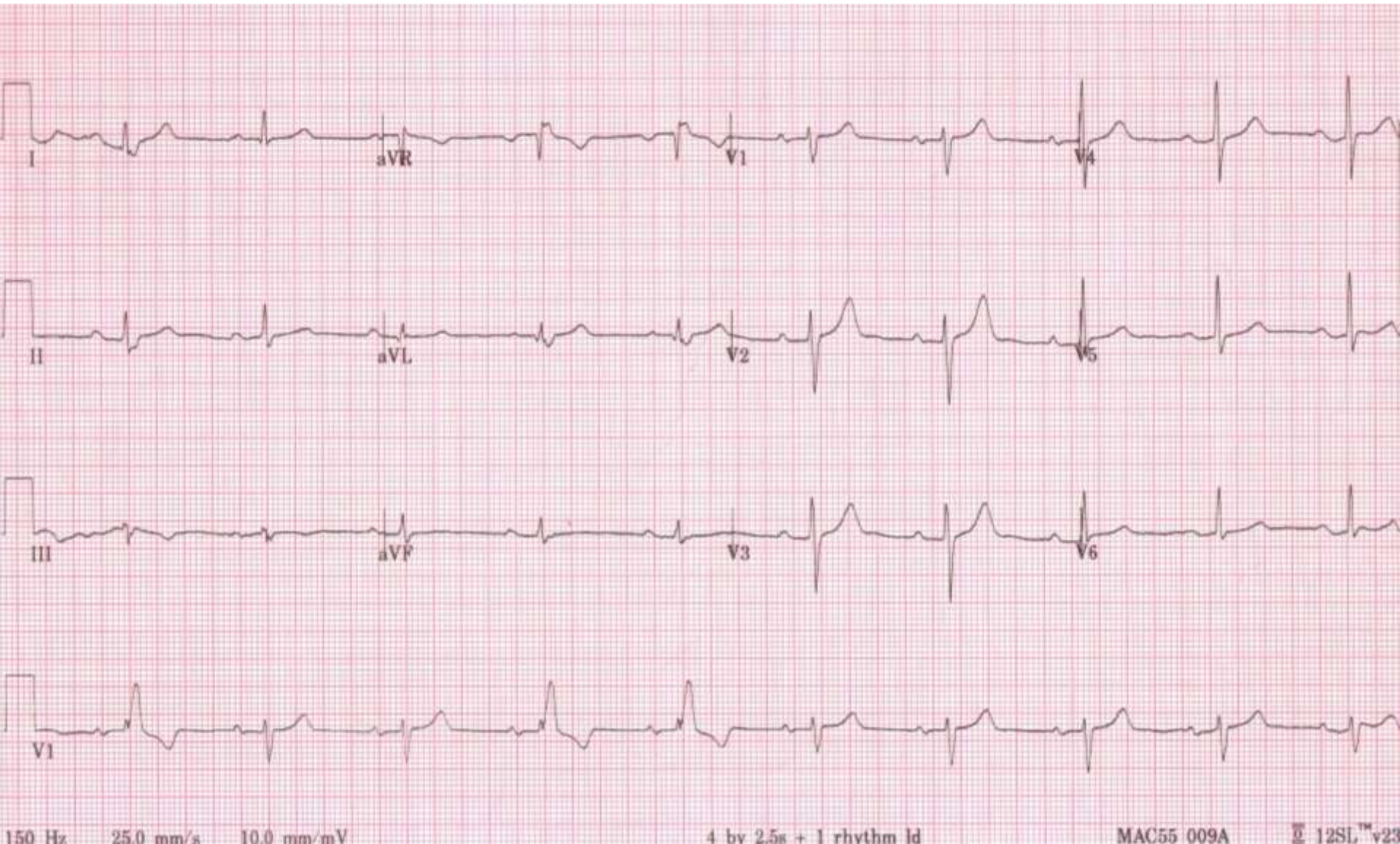
....and post RFA



Final LUPV



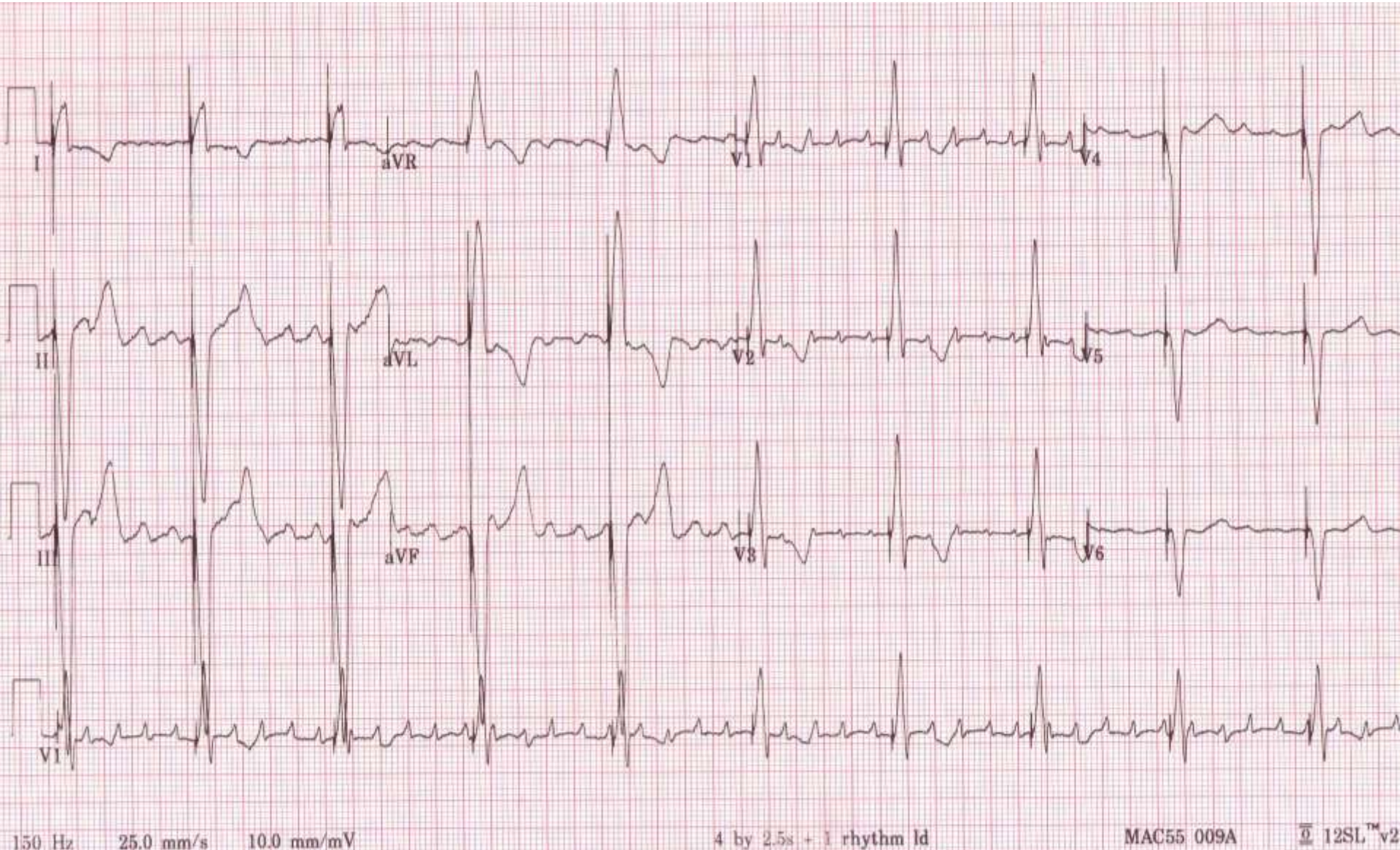
ECG-JC



Case 3

- PS
- 78 yo
- pAF
- Previous DDDR PPM and AV node ablation
- Ongoing lethargy

ECG-PS



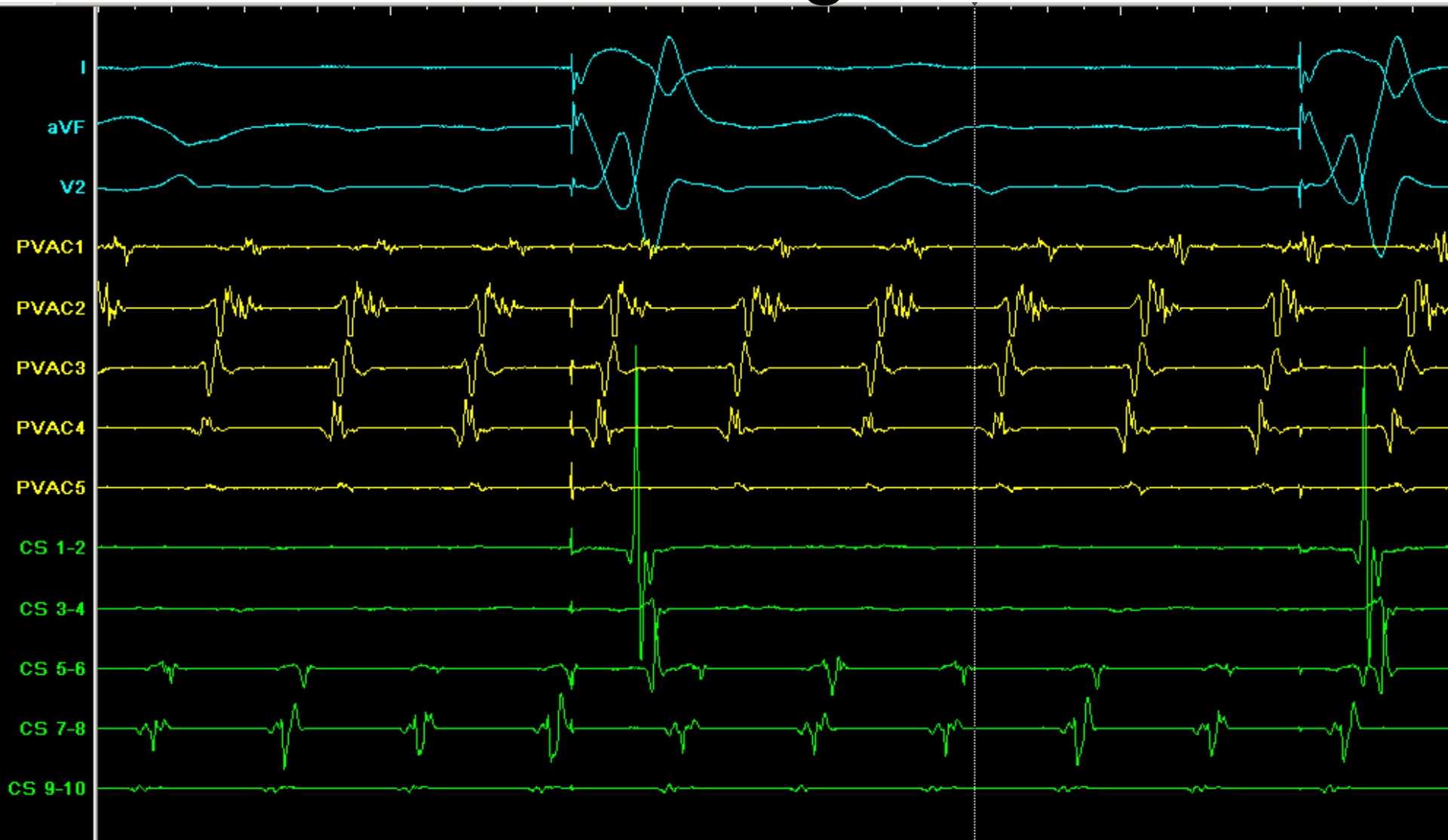
Venogram - PS



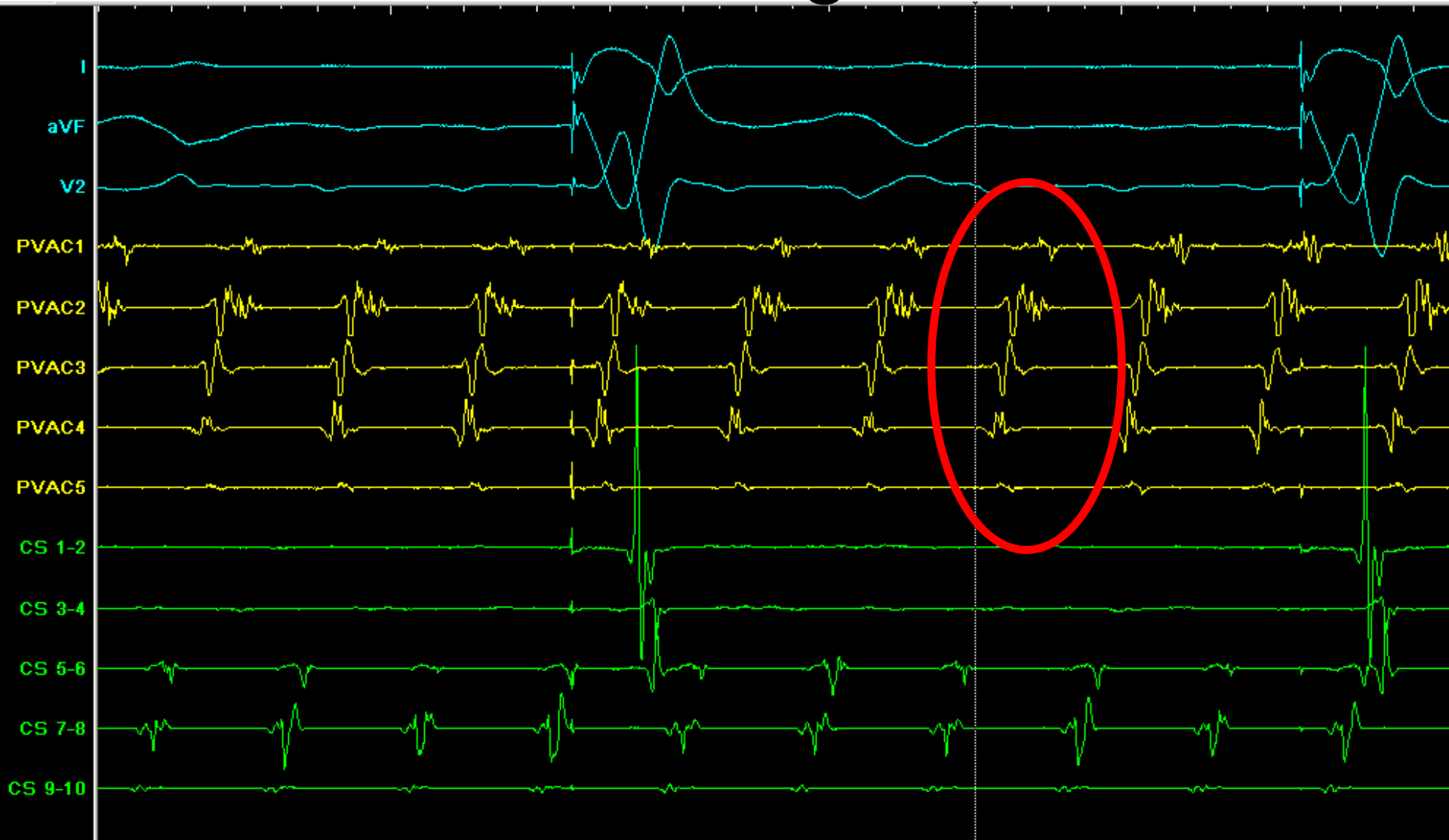
Venogram - PS

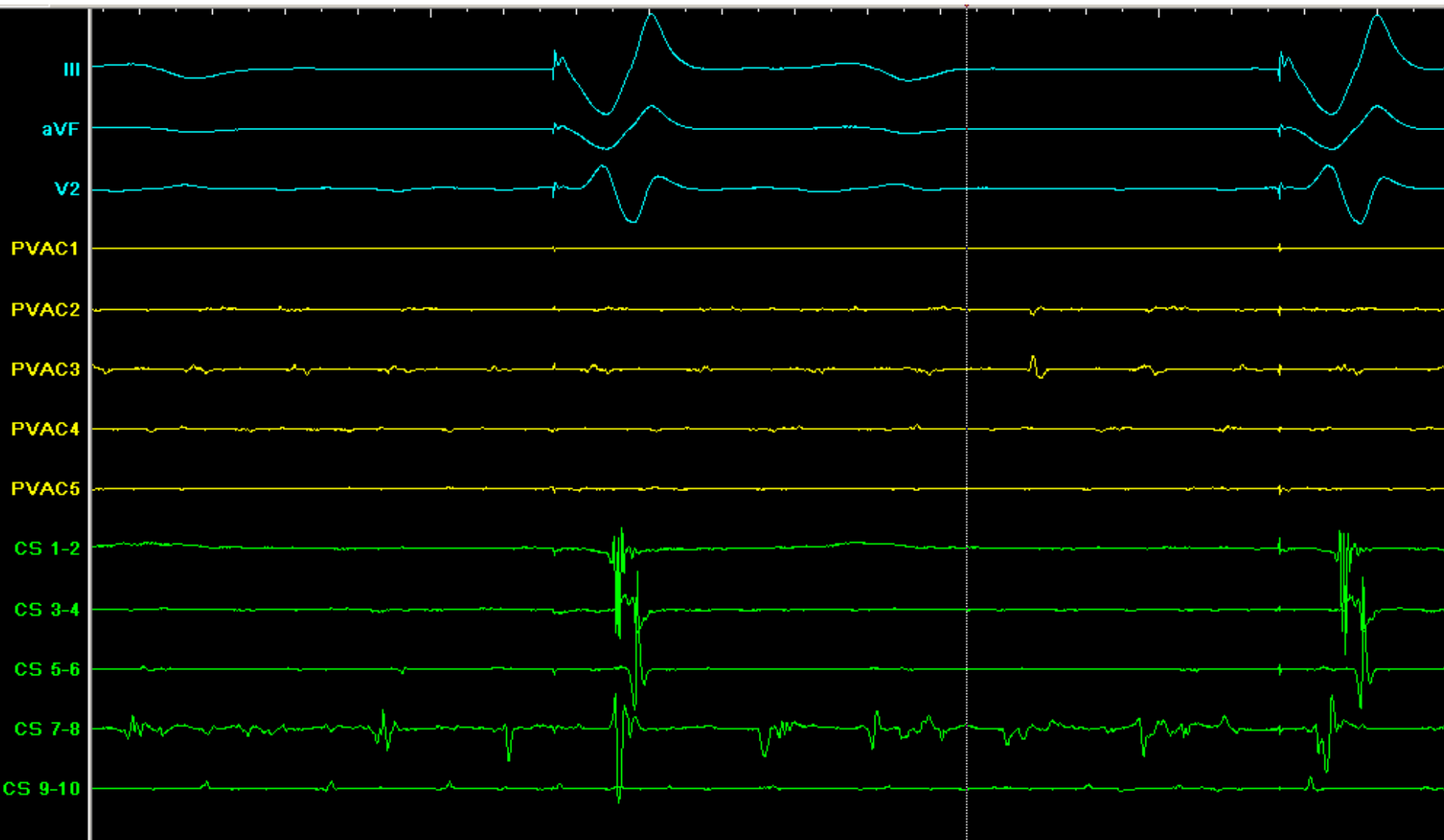


LUPV signal

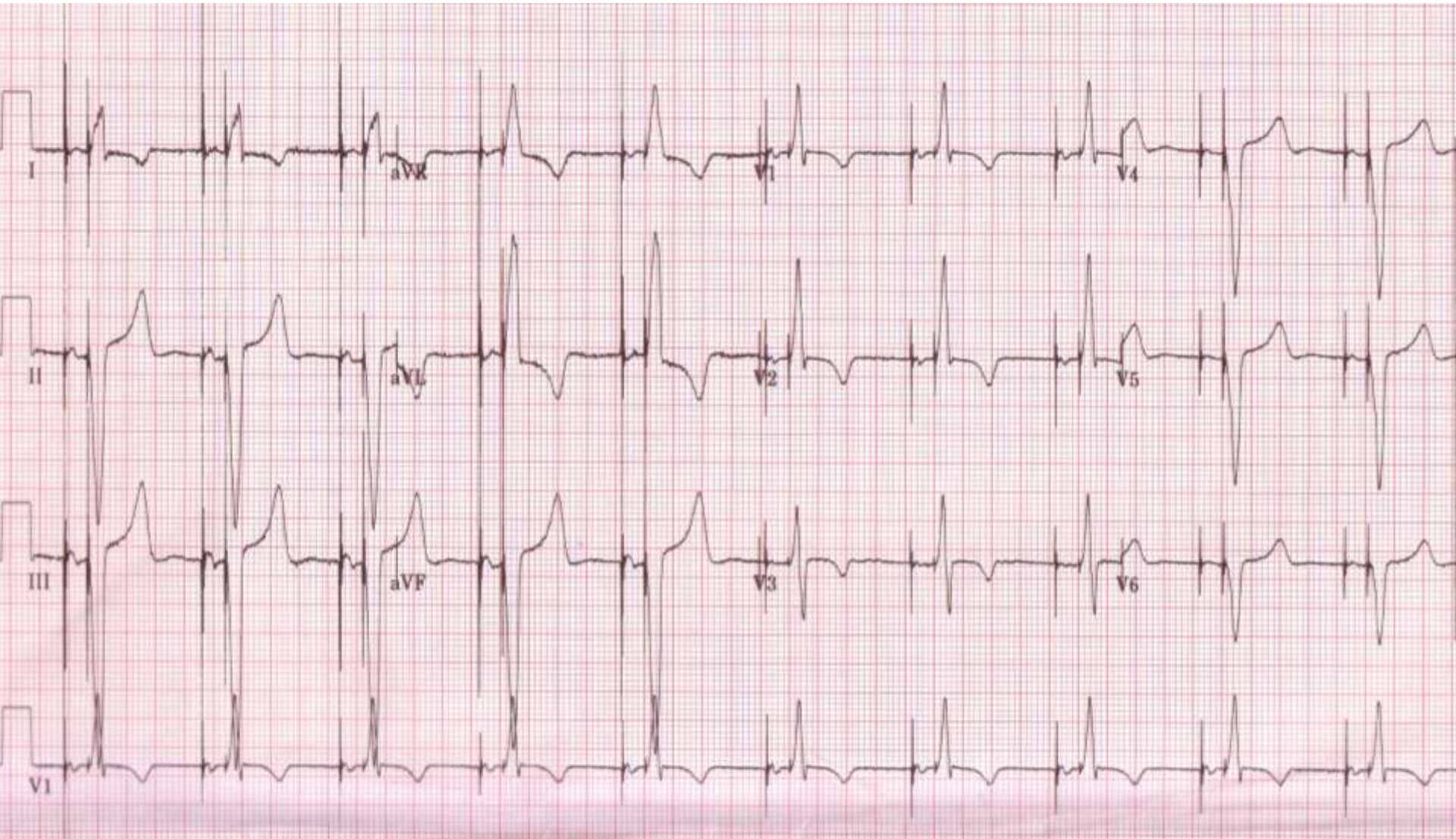


LUPV signal





ECG-PS



Summary

Small case series

- Coarse AF/ atrial tachy
- Dilated LUPV
- Organised micro-reentry in LUPV
- Respond to focused ablation

? Preprocedure MR venography

- Important to identify pts with AF and enlarged LUPV
- Despite comorbidities and persistent AF pts with such anatomy should be targeted for PVI

Acknowledgements

Vicky Humphries

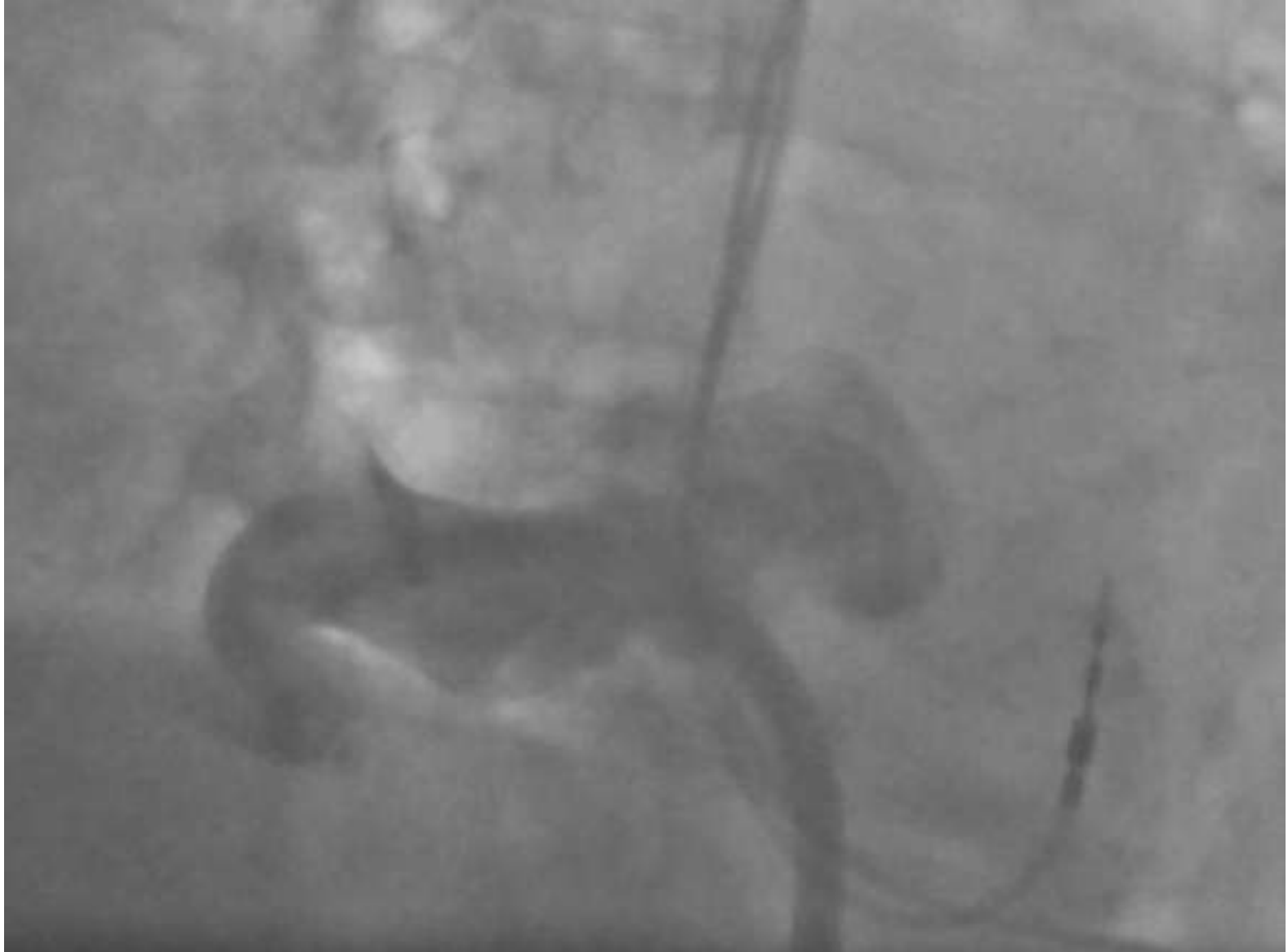
Senior Physiologist JCUH, Middlesbrough

Donald Greenhaugh, Senior Physiologist,
Freeman, Newcastle

PS Venogram - RPV



PS Venogram - RPV



JC Venogram - RPV



JC Venogram - RPV



ECG-RJ

- Pre ECG

