

PediRhythm VII, Thessaloniki

My worst case in the cath lab

Joel A. Kirsh, MD, FRCPC, CEPS

Cardiology and Critical Care, Hospital for Sick Children

Associate Professor of Pediatrics, University of Toronto



My worst case in the cath lab (recently)

Joel A. Kirsh, MD, FRCPC, CEPS

Cardiology and Critical Care, Hospital for Sick Children

Associate Professor of Pediatrics, University of Toronto



I.

I have received (a)
research grant(s) /
in kind support

A

... from current
sponsor(s)

YES☐**NO**☒**II.**

I have been a speaker
or participant in
accredited CME/CPD ...

A

... from current
sponsor(s)

YES☐**NO**☒**III.**

I have been a
consultant / strategic
advisor etc. ...

A

... for current
sponsor(s)

YES☐**NO**☒**IV.**

I am a holder of
(a) patent / shares /
stocks or ownership...

A

... related to
presentation

YES☐**NO**☒**B**

... from any institution

YES☐**NO**☒**B**

... from any institution

YES☐**NO**☒**B**

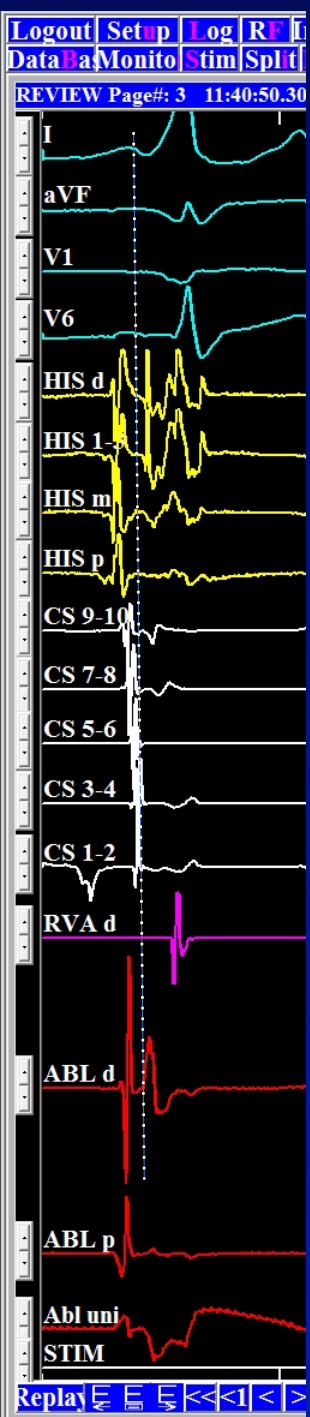
... for any institution

YES☐**NO**☒**B**

... not related to
presentation

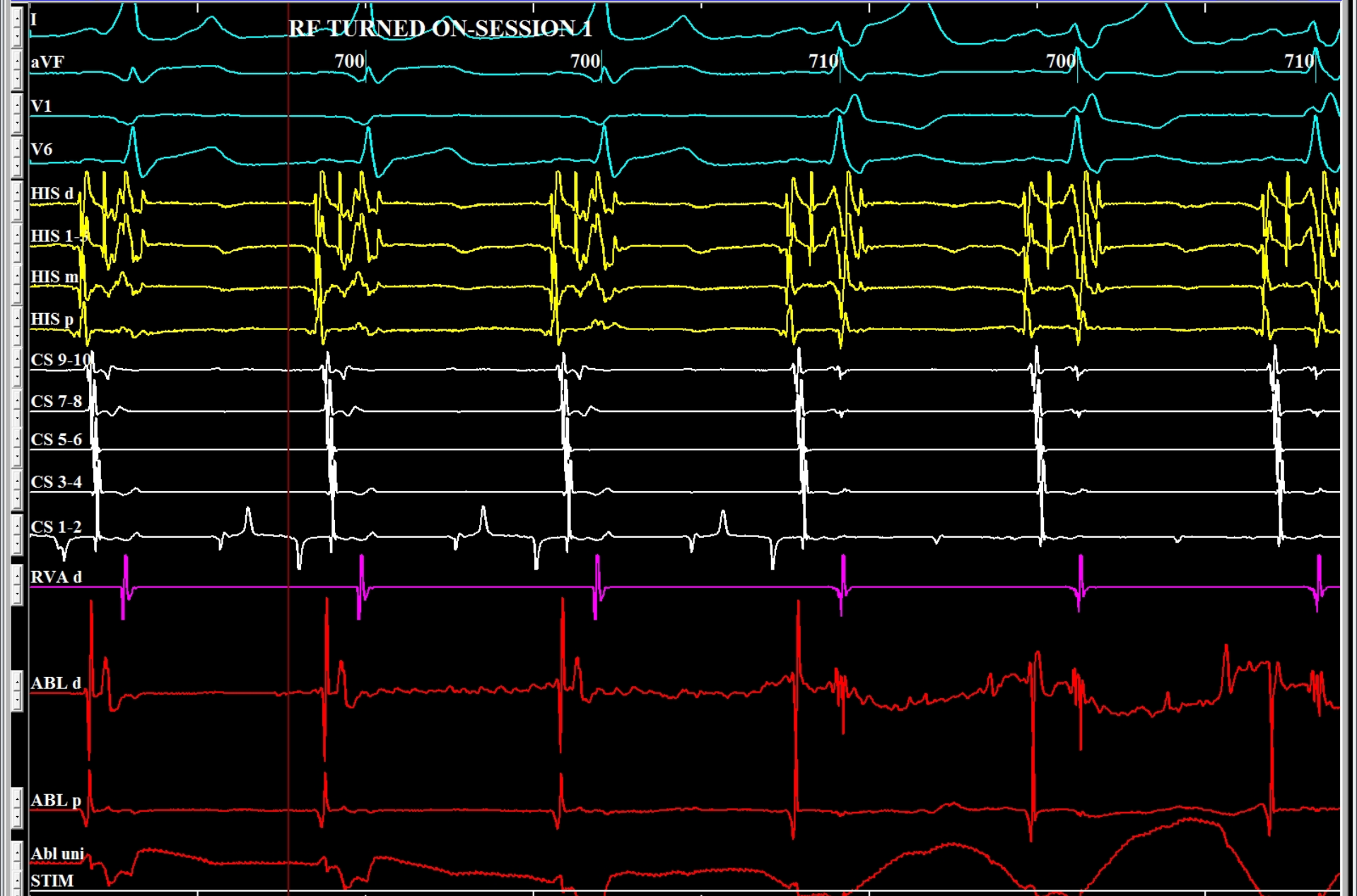
YES☐**NO**☒

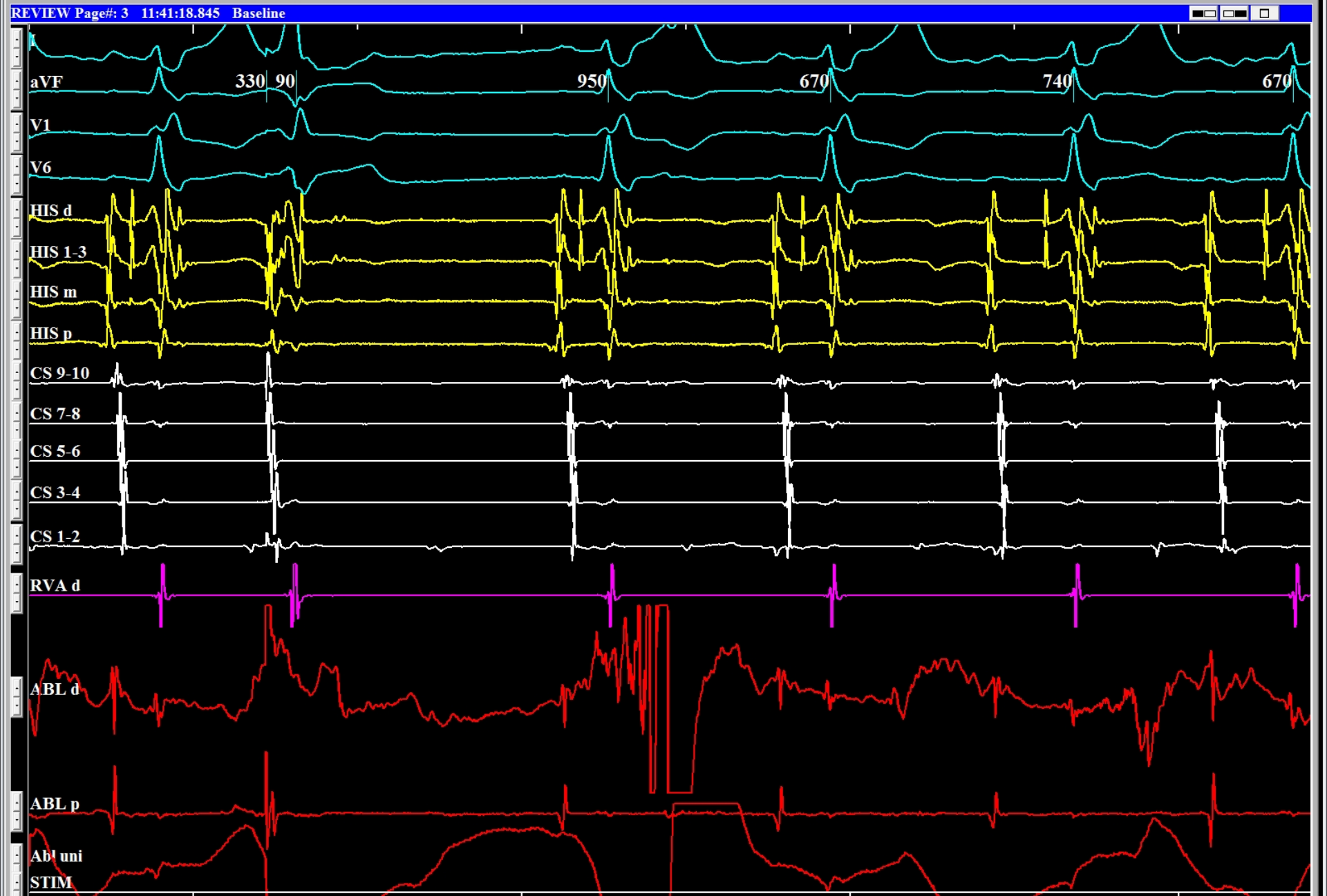
SCORE: 0

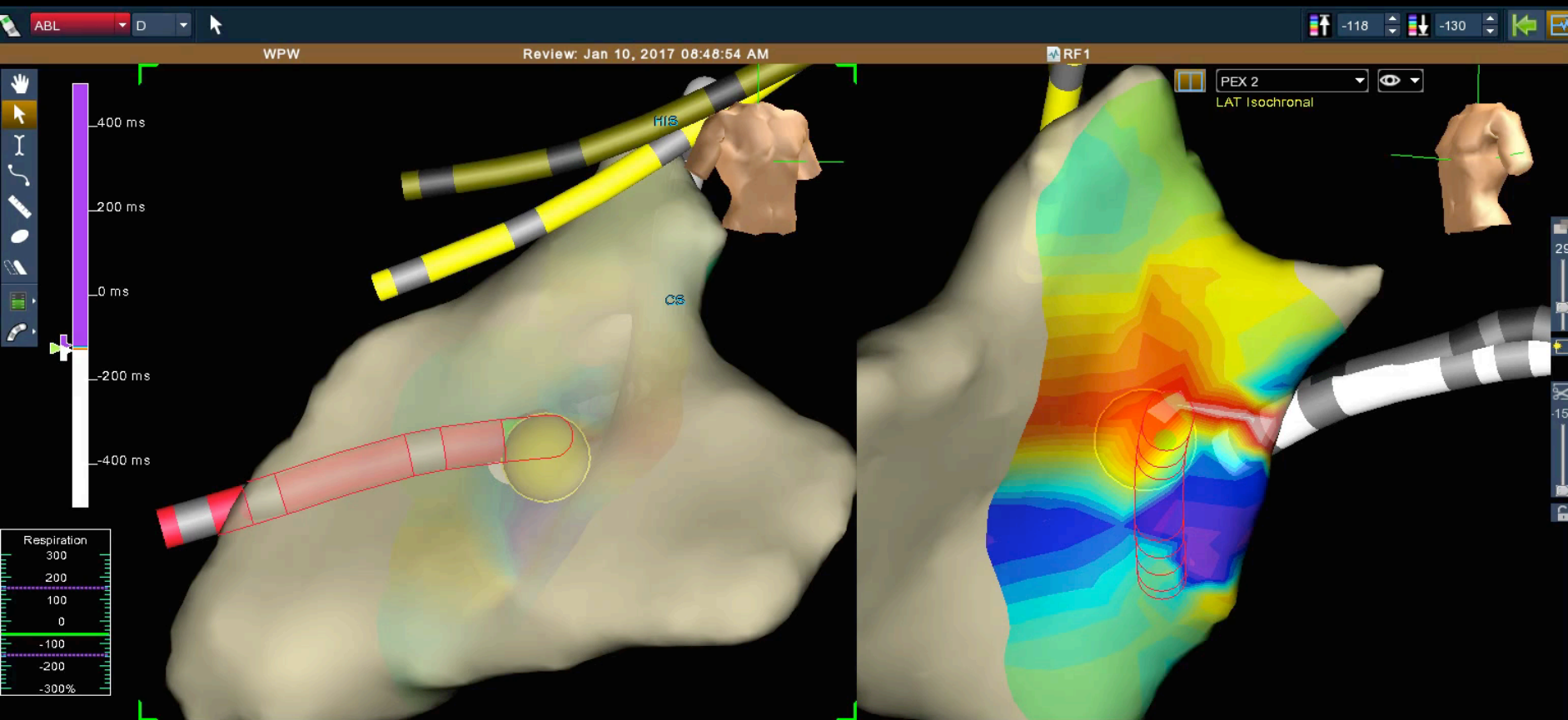


- Adolescent patient
- WPW/palpitations
- Short ACERP & SPERRI
- R posteroseptal AP
- Mouth of CS

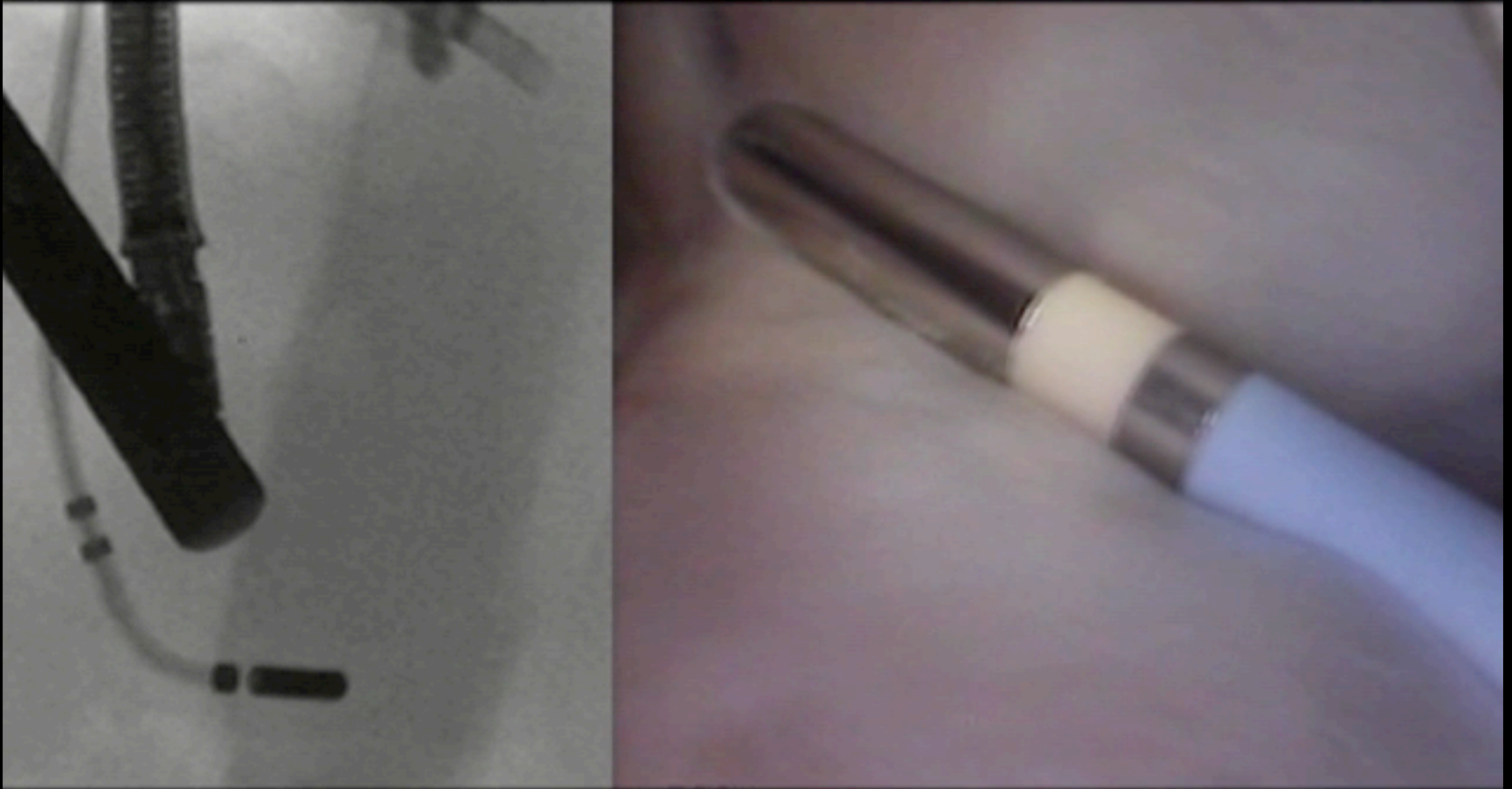
REVIEW Page#: 3 11:40:50.307 Baseline





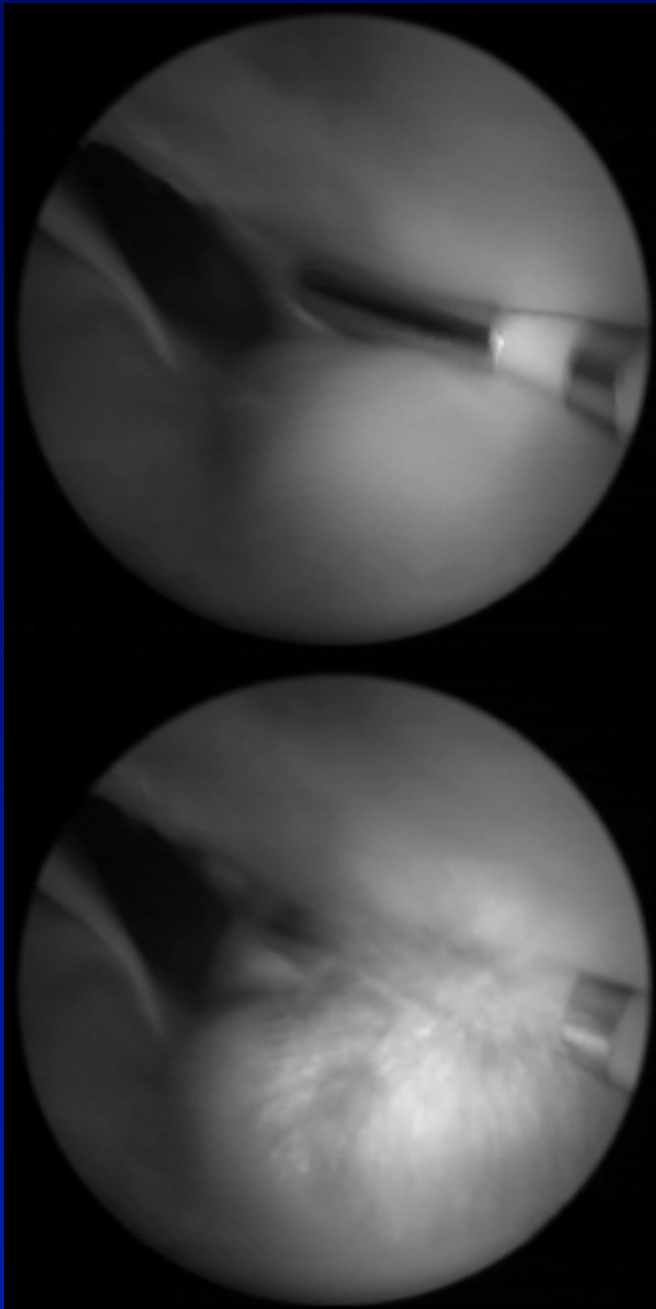


Fluoroscopy & Intracardiac Endoscope



University of Minnesota/© Medtronic, Inc

Quallich et al, Heart Rhythm Case Reports 2015;1:264-6



- Brady-tachy episode
 - Patient bradycardic
 - Physician tachycardic
- Brief period of AV block
- Fluoro: stable silhouette

Microbubble formation

Wood et al, HeartRhythm 2005;2:397-403

Table 2 Maximal tissue temperatures at microbubble formation atrium/esophagus

Condition	Ablation electrode temperature (°C)	Impedance (Ω)	Power (W)	Maximal tissue temperature (°C)
Preablation	20	111 \pm 8	0	37
First bubble	29 \pm 3*	71 \pm 8†	25 \pm 4*	67.3 \pm 11.8*
Type 1	34 \pm 3*‡	65 \pm 7†‡	33 \pm 6*	88.3 \pm 8.1*‡
Type 2	37 \pm 3‡	65 \pm 7†	39 \pm 7*	99.2 \pm 7.8*‡
Pop	41 \pm 5*	62 \pm 5†‡	44 \pm 5	107.2 \pm 10.0

* $p < .05$ vs preceding condition.

Steam pops during irrigated RF

Seiler et al, Heart Rhythm 2008;5:1411-5

- Open-irrigated RF of VT in adult hearts
- 62 pops in 4107 lesions (1.5%)
- Perforation in 1/62 pops (1.6%)

Was it my worst case?

- No return of pre-excitation
- Normal post-procedure echocardiogram
- Next time . . . cryoablation:
 - Ice rather than steam
 - Catheter position maintained

