



FAKULTNÍ NEMOCNICE®
OLOMOUC



Lékařská
fakulta

Univerzita Palackého
v Olomouci



KOMPLEXNÍ
KARDIOVASKULÁRNÍ CENTRUM
FAKULTNÍ NEMOCNICE OLOMOUC

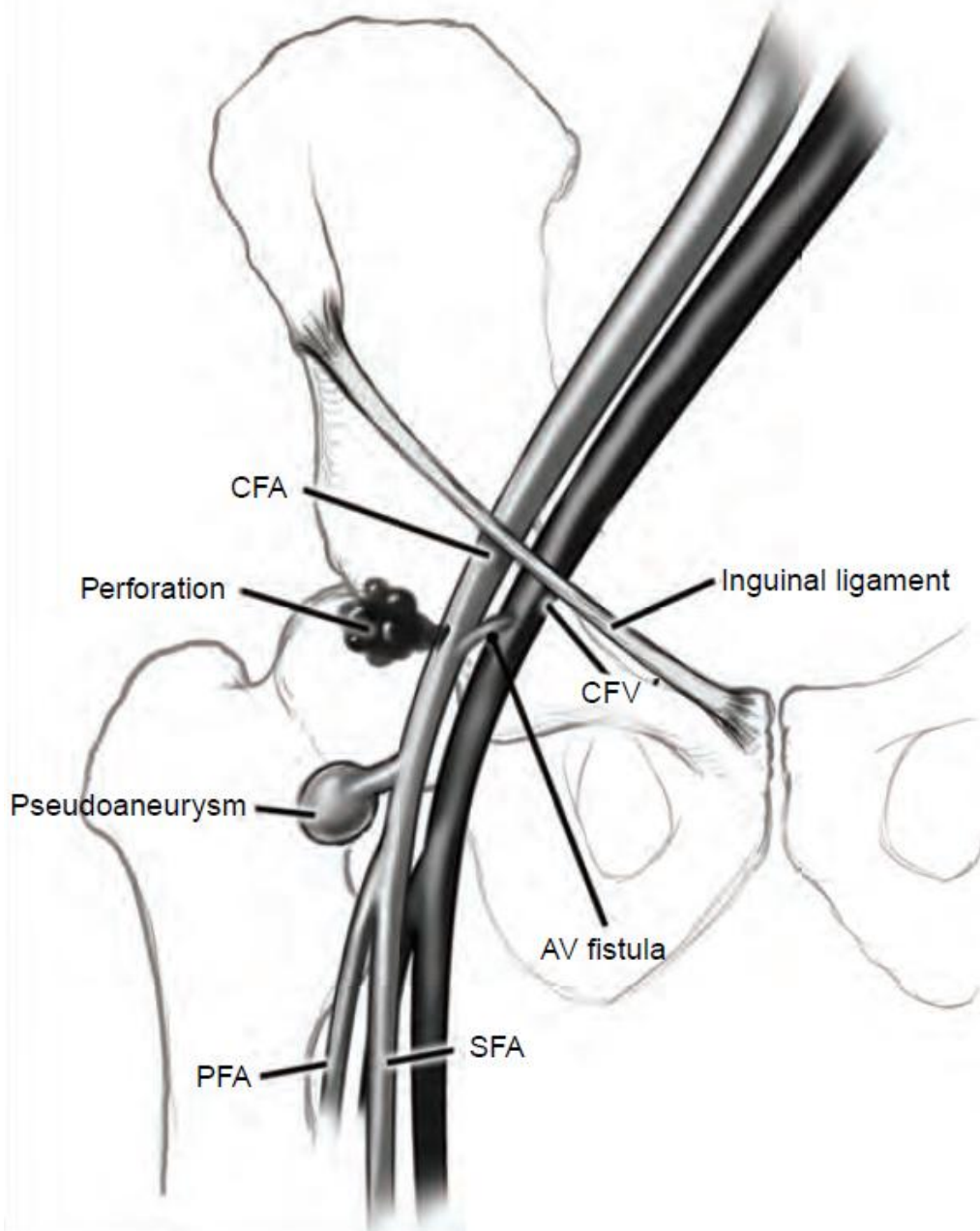
Kardio 35

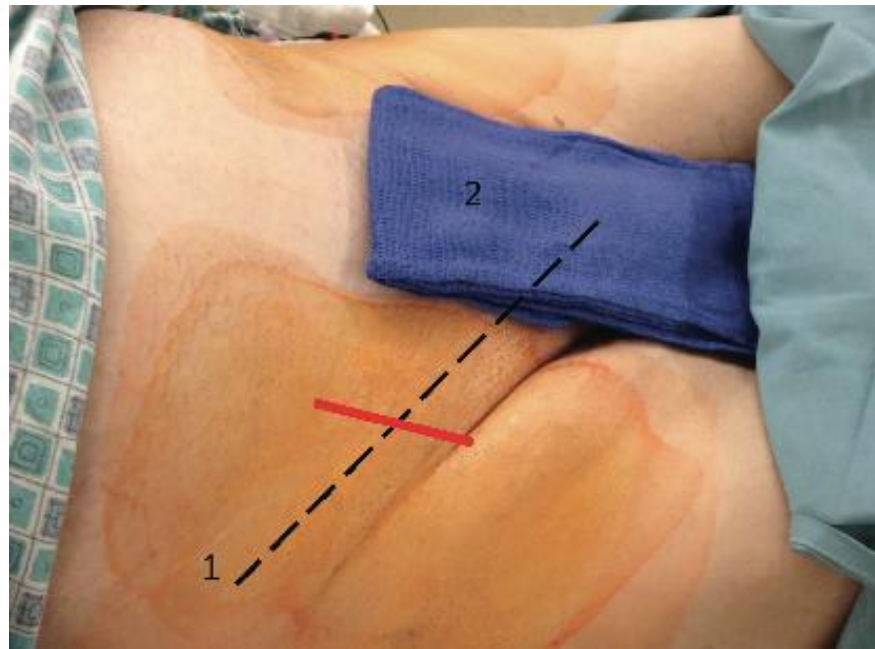
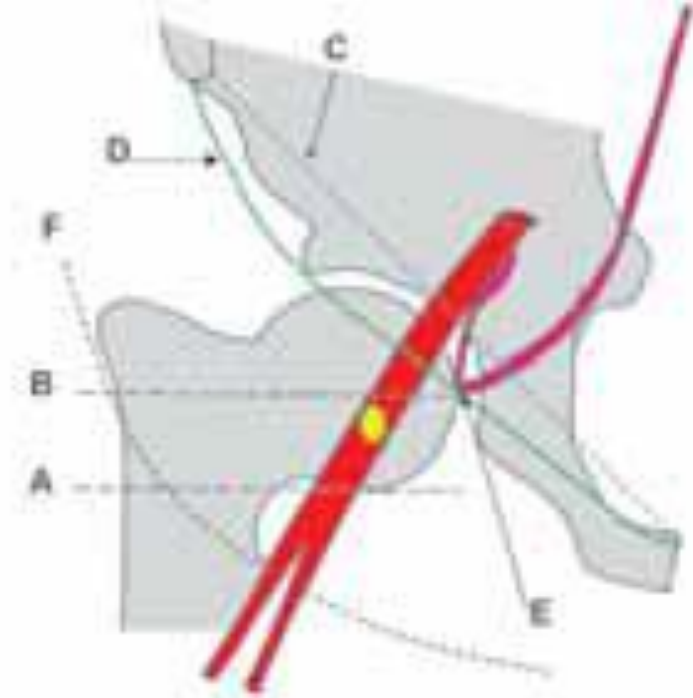
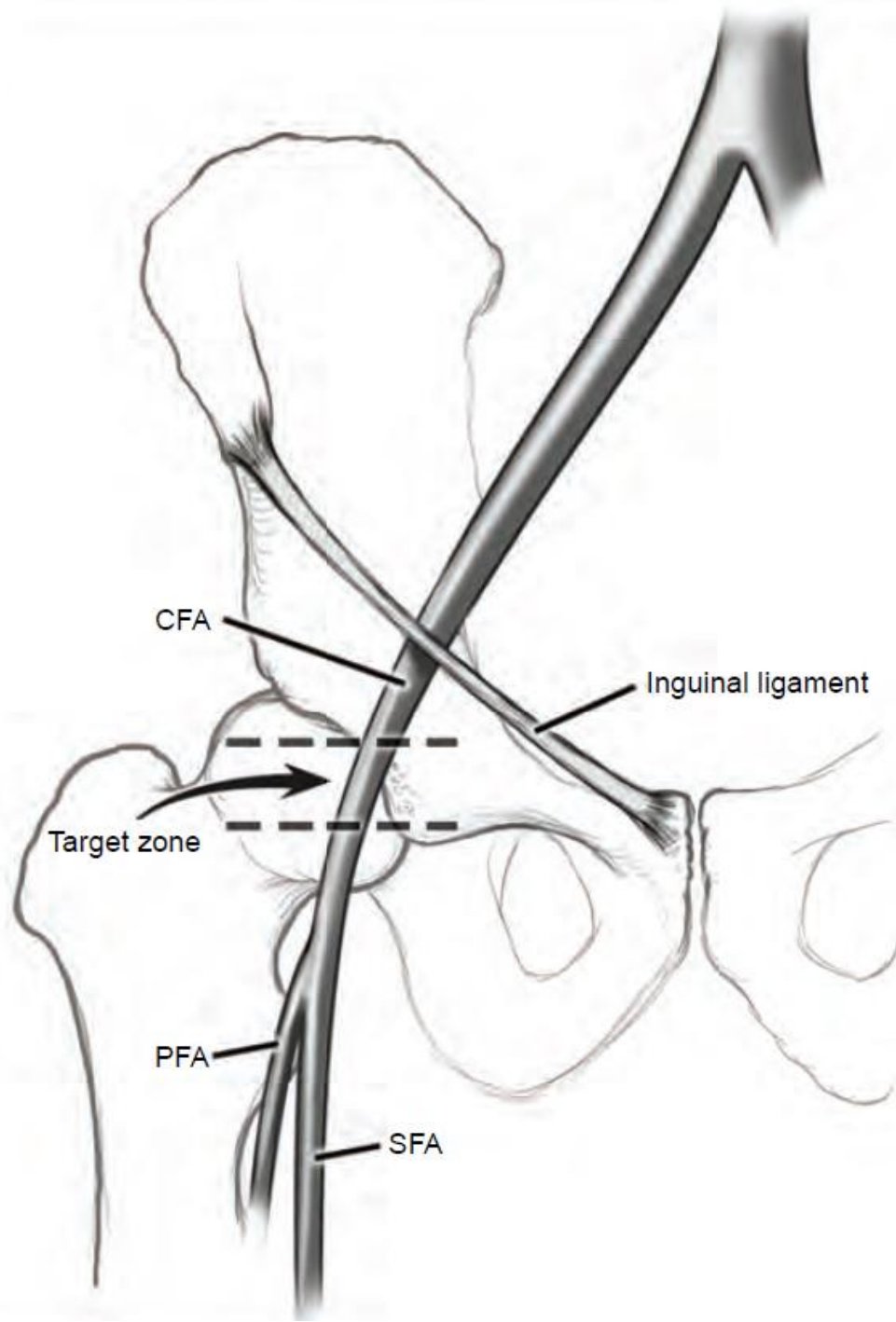
Mladý kardiolog v elektrofyziologické laboratoři

TECHNIKY K RYCHLÉ A BEZPEČNÉ CÉVNÍ A TRANSSEPTÁLNÍ PUNKCI

T. Skála (Olomouc)

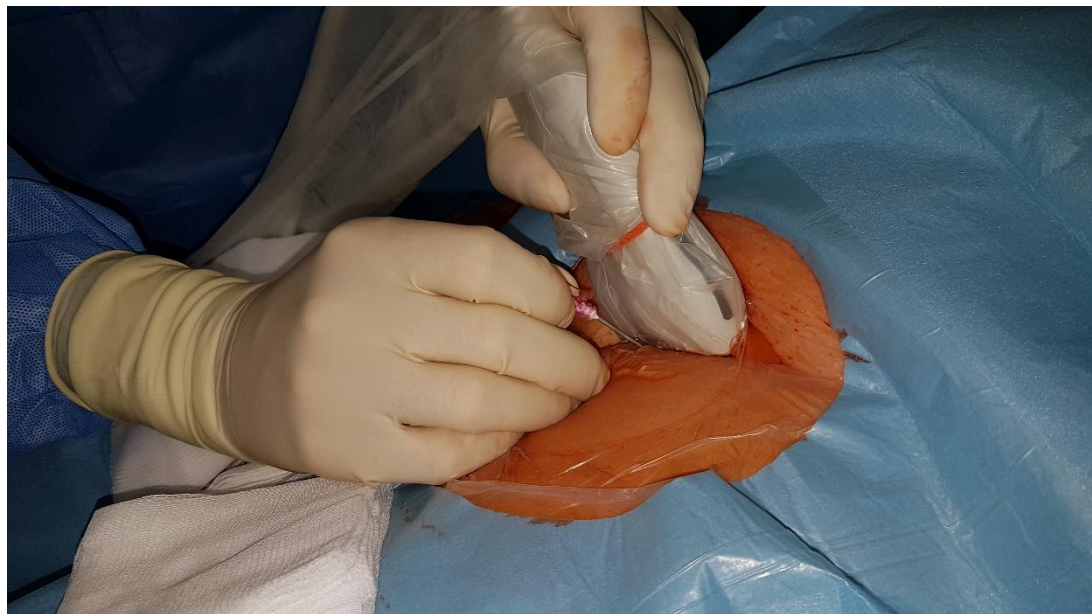
I. Punkce cév na elektrofyzilogickém sále











7506174137

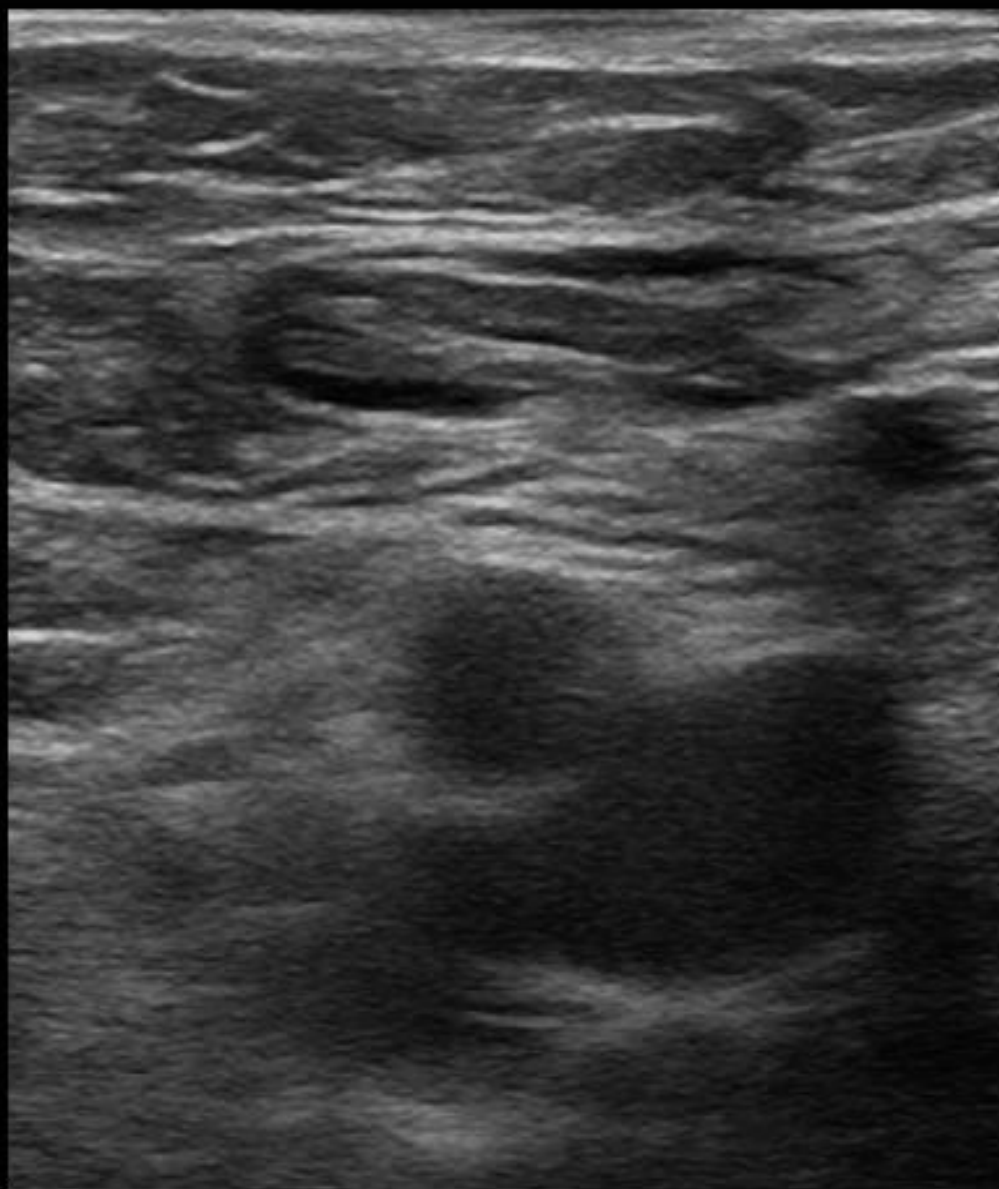
SnT

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Zlin

P



2

4

4.5cm



7506174137

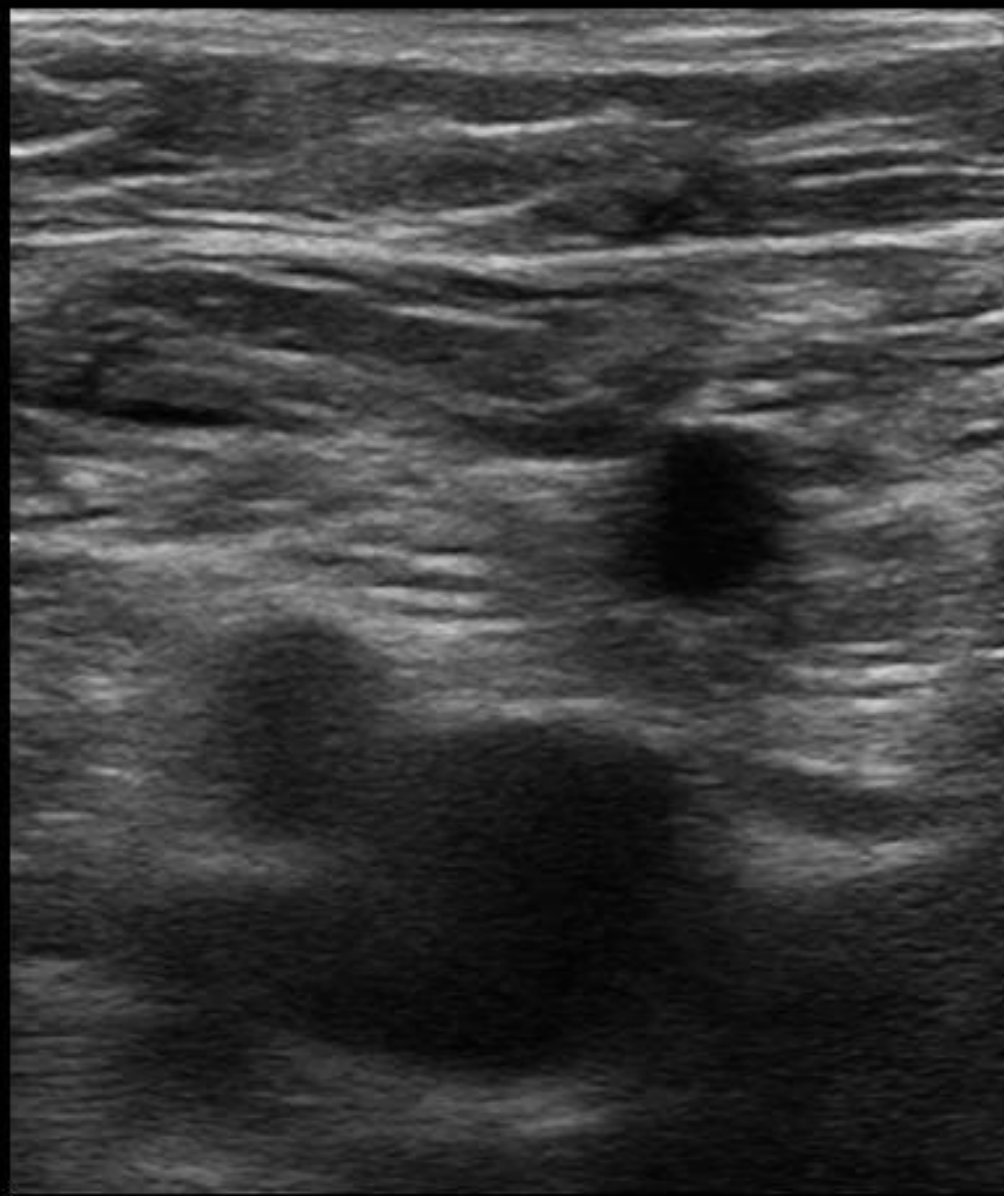
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Zlin

P



m

n

2

/2

2

4



4.5cm



ESC

European Society
of Cardiology

Europace (2018) 20, 1107–1114

doi:10.1093/europace/eux175

CLINICAL RESEARCH

Ablation for atrial fibrillation

Ultrasound-guided versus conventional femoral venipuncture for catheter ablation of atrial fibrillation: a multicentre randomized efficacy and safety trial (ULTRA-FAST trial)

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Yuriko Sato⁴, Takamichi Kogure⁵, Petr Peichl¹, Petr Konečný¹, Helena Jansová²,
Pavel Kučera³, Bashar Aldhoon¹, Robert Čihák¹, Yoichi Sugimura⁴, and
Josef Kautzner¹**

¹Department of Cardiology, Institute for Clinical and Experimental Medicine (IKEM), Prague, Vídeňská 1958/9, 140 21 Prague 4, Czech Republic; ²Department of Cardiology, Military University Hospital Prague, U Vojenské nemocnice 1/1200, 169 02 Prague 6, Czech Republic; ³Department of Cardiology, Regional Hospital Liberec, Husova 357/10, 460 63 Liberec, Czech Republic; ⁴Department of Cardiology, Kawakita General Hospital, 1-7-3, Asagaya-kita, Suginami-ku, 166 0001 Tokyo, Japan; and ⁵Department of Anesthesiology and Pain Relief Center, The University of Tokyo Hospital, 7-3-1, Hongo, Bunkyo-ku, 113 0033 Tokyo, Japan

Table 2 Primary and secondary outcomes

Outcome	USG (n = 159)	CONV (n = 160)	P-value
Primary outcome	1 (0.6%)	3 (1.9%)	0.62
Haematoma with haemoglobin drop	0 (0%)	2 (1.3%)	0.50
Arteriovenous fistula	1 (0.6%)	1 (0.6%)	1.000
Secondary outcomes			
Intra-procedural outcomes			
Puncture time (s)	288 [191–370]	369 [257–584]	<0.001
First-pass success	118 (74%)	32 (20%)	<0.001
Extra puncture attempts (per patient)	0.5 ± 1.9	2.1 ± 1.9	<0.001
Inadvertent arterial puncture (per patient)	0.07 ± 0.38	0.25 ± 0.51	<0.001
Use of X-ray	4 (3%)	17 (11%)	<0.01
Unsuccessful cannulation	1 (0.6%)	22 (14%)	<0.001
Cross-over	0 (0%)	14 (9%)	<0.001
Hand-over the procedure	1 (0.6%)	11 (7%)	<0.01
Prolonged compression	19 (12%)	23 (14%)	0.52
Pain scale >3	3 (2%)	9 (6%)	0.08

Values are presented as n (%), mean ± standard deviation or median [interquartile range].

USG, ultrasound-guided; CONV, conventional.

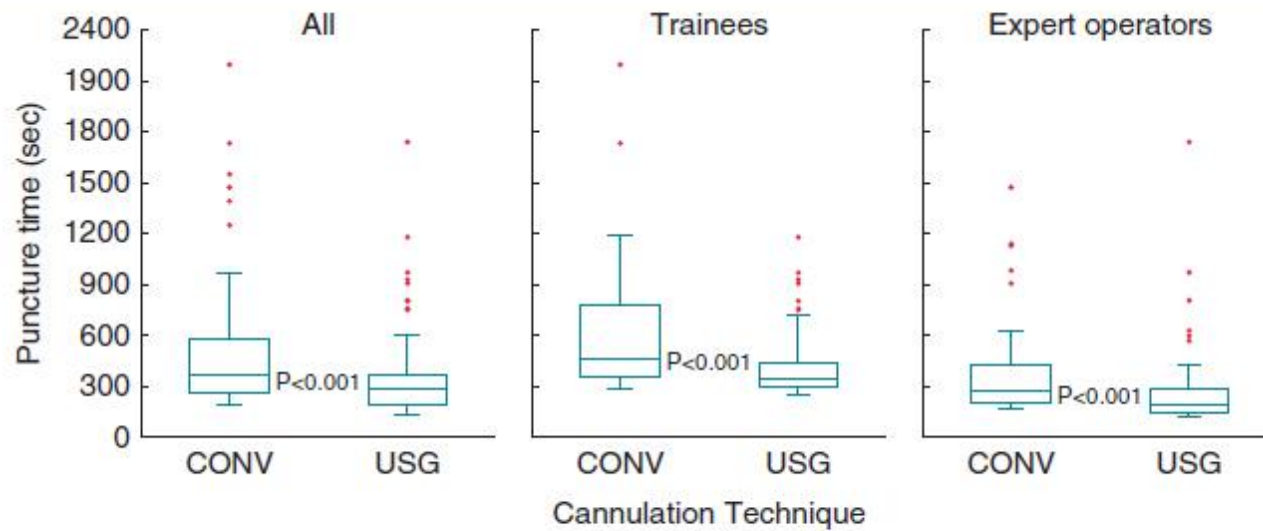
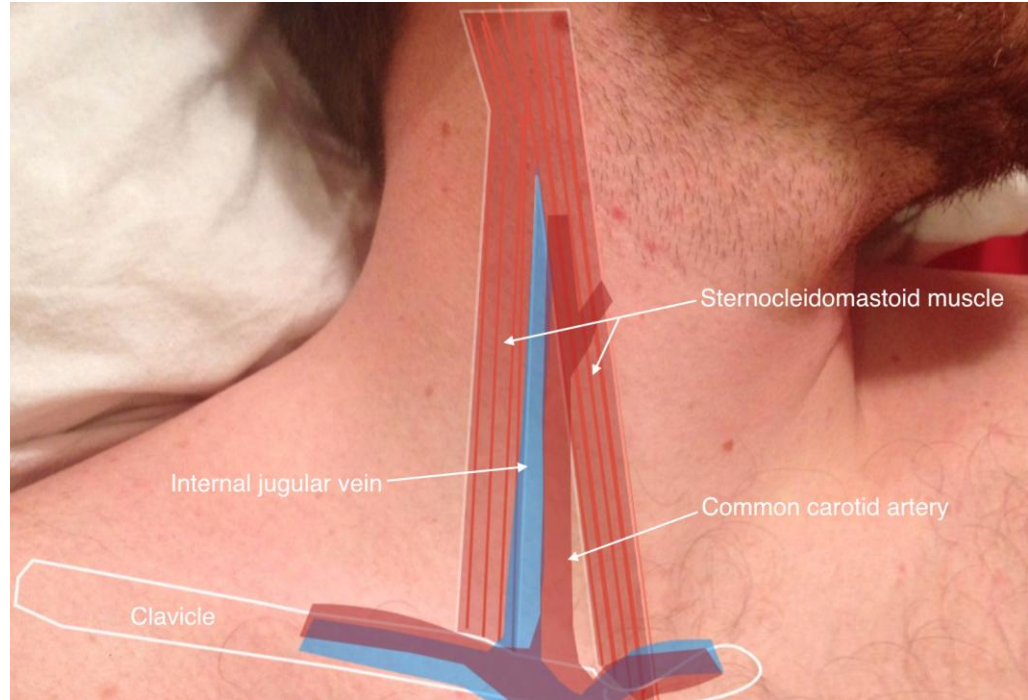
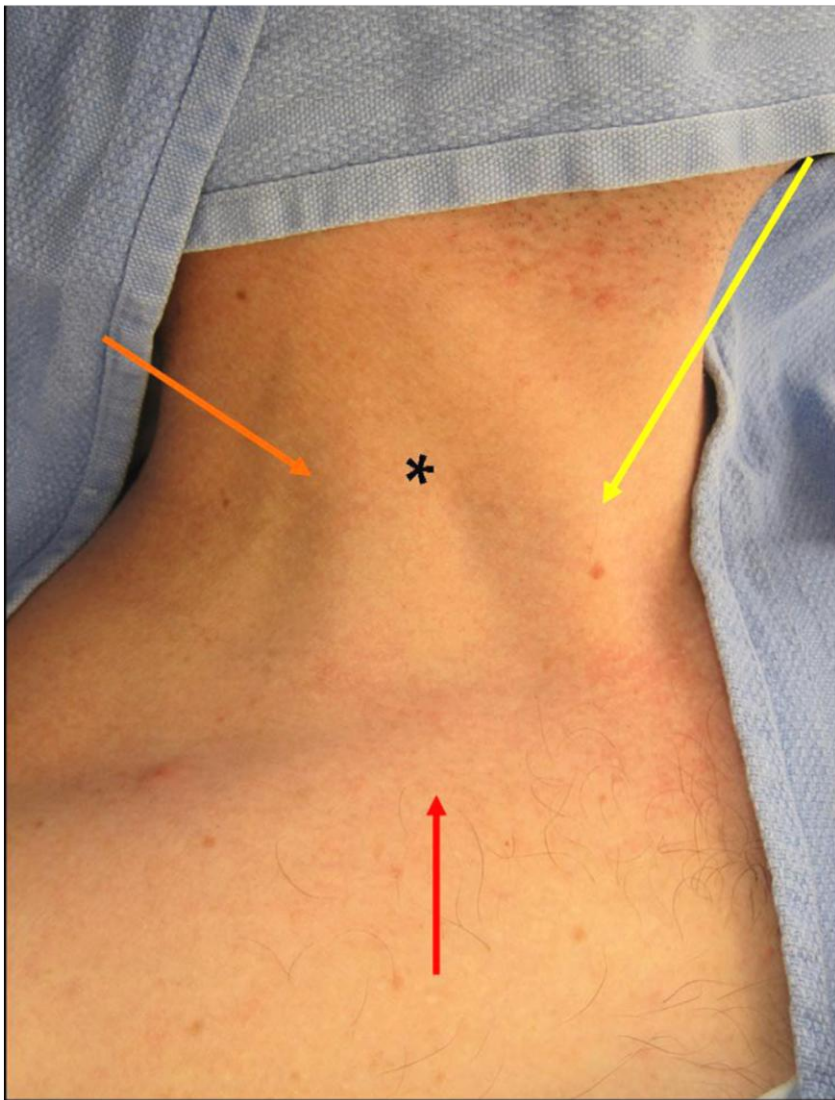


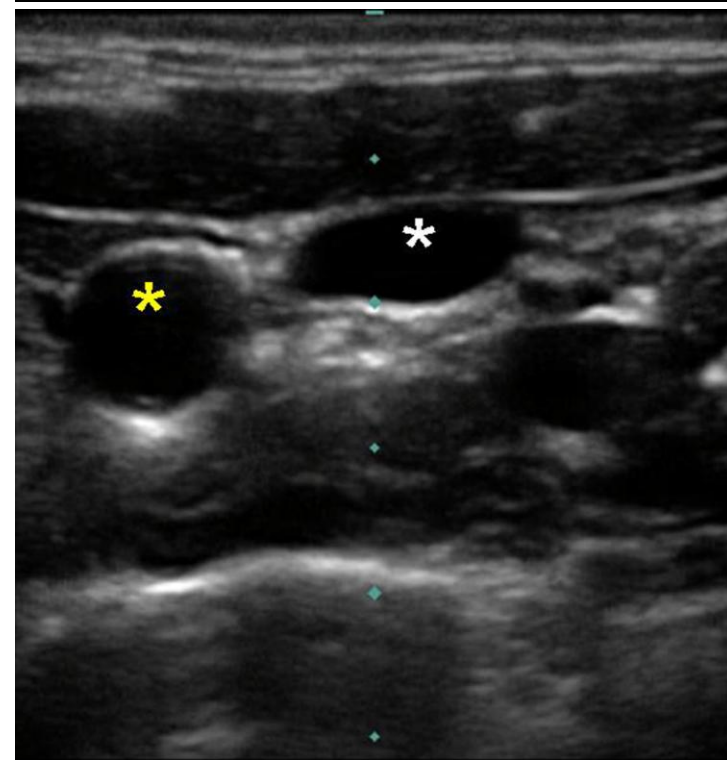
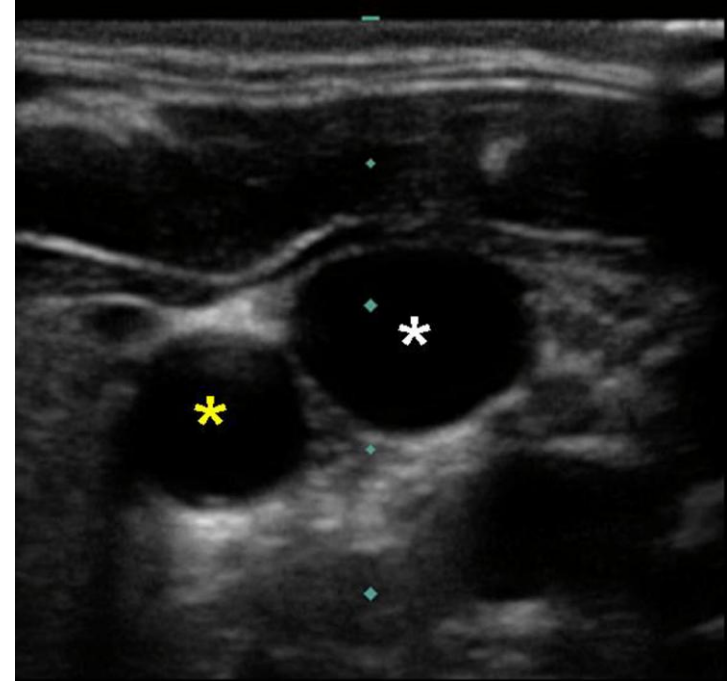
Figure 3 Puncture time—comparison of USG and CONV strategy in total population and in subgroups of trainees and expert operators. The boxes and whiskers indicate the interquartile and 10–90 percentile range of the puncture time, respectively.



- Dx VJI
- Nižší punkce – risk A, PNO
- Rotace hlavy 20° kontra



- UZV!
- 97% V je (VJI dx) těsně posterorně od vrcholu Sedillot. Δ
- Hloubka ne přes 2,5 cm
- Sklon jehly 45°
- Dilatátor jen po hloubku jehly při punkci

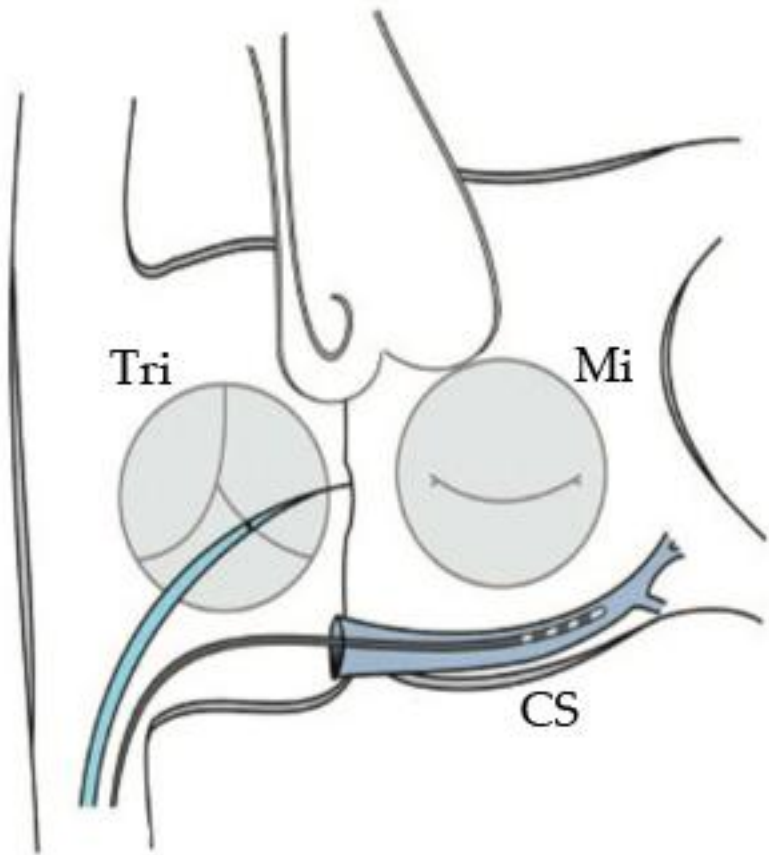


II. Závěr

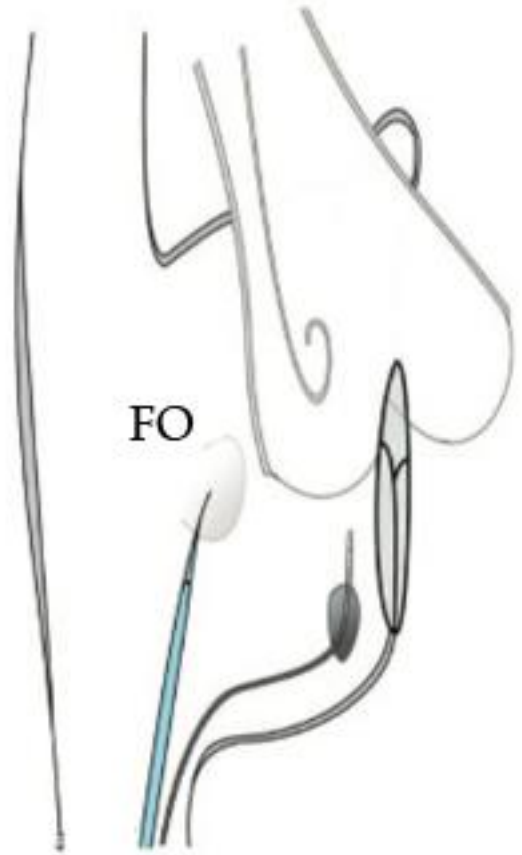
- Znalost anatomie (vědět, kde zhruba jsem)
- UZV! – max. bezpečnost, zlepšení výsledků (rychlost i komplikace) u fellows i u zkušených

II. TS punkce

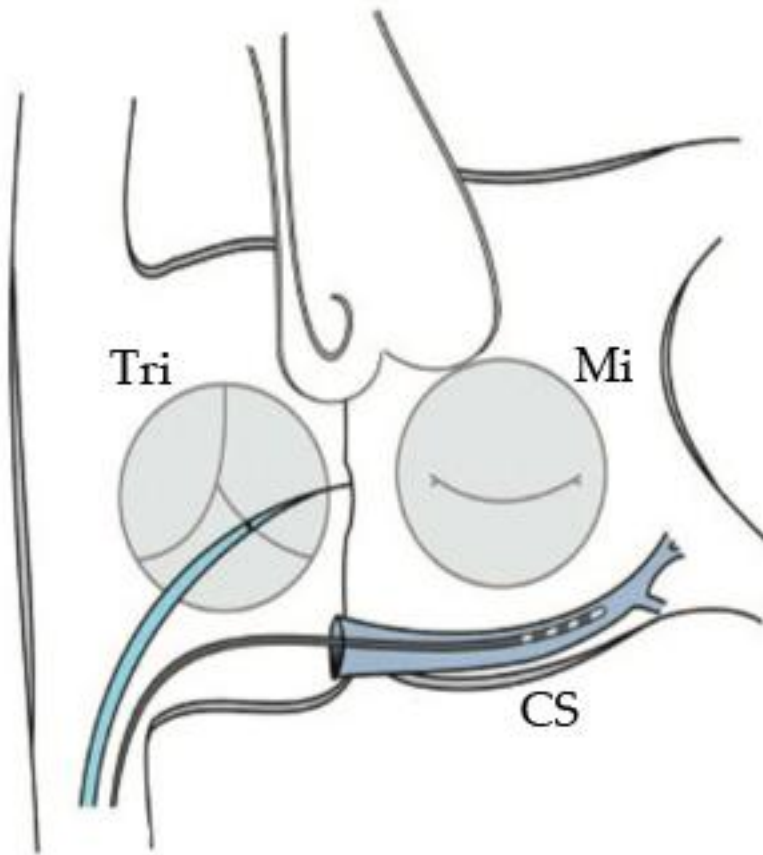
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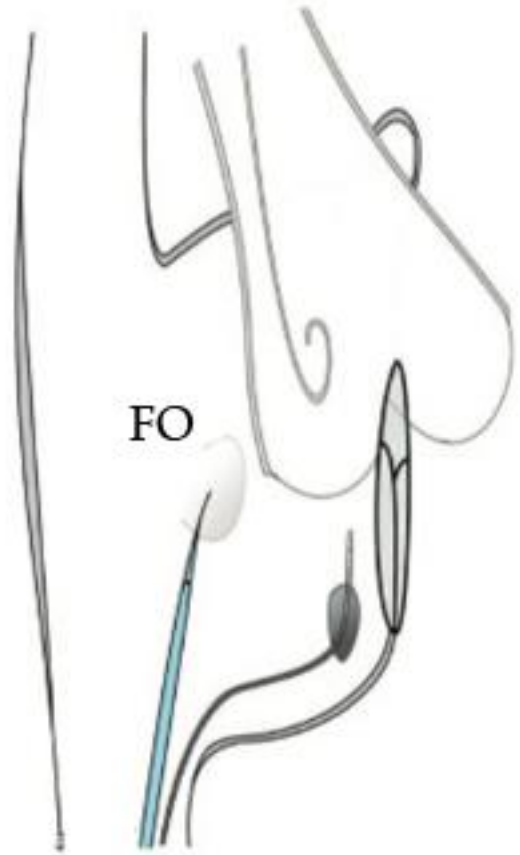
RAO



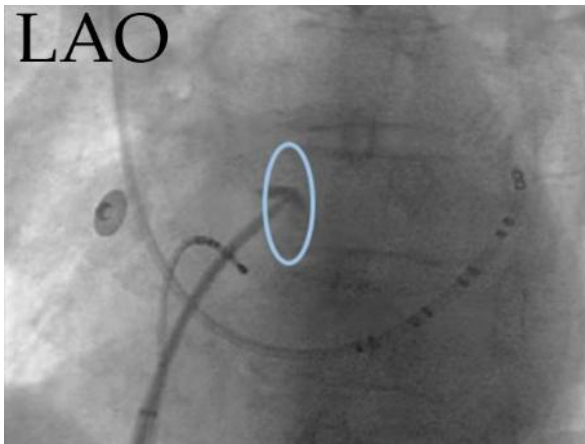
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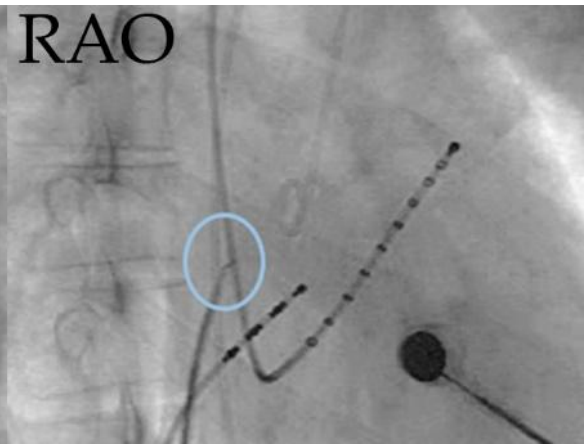
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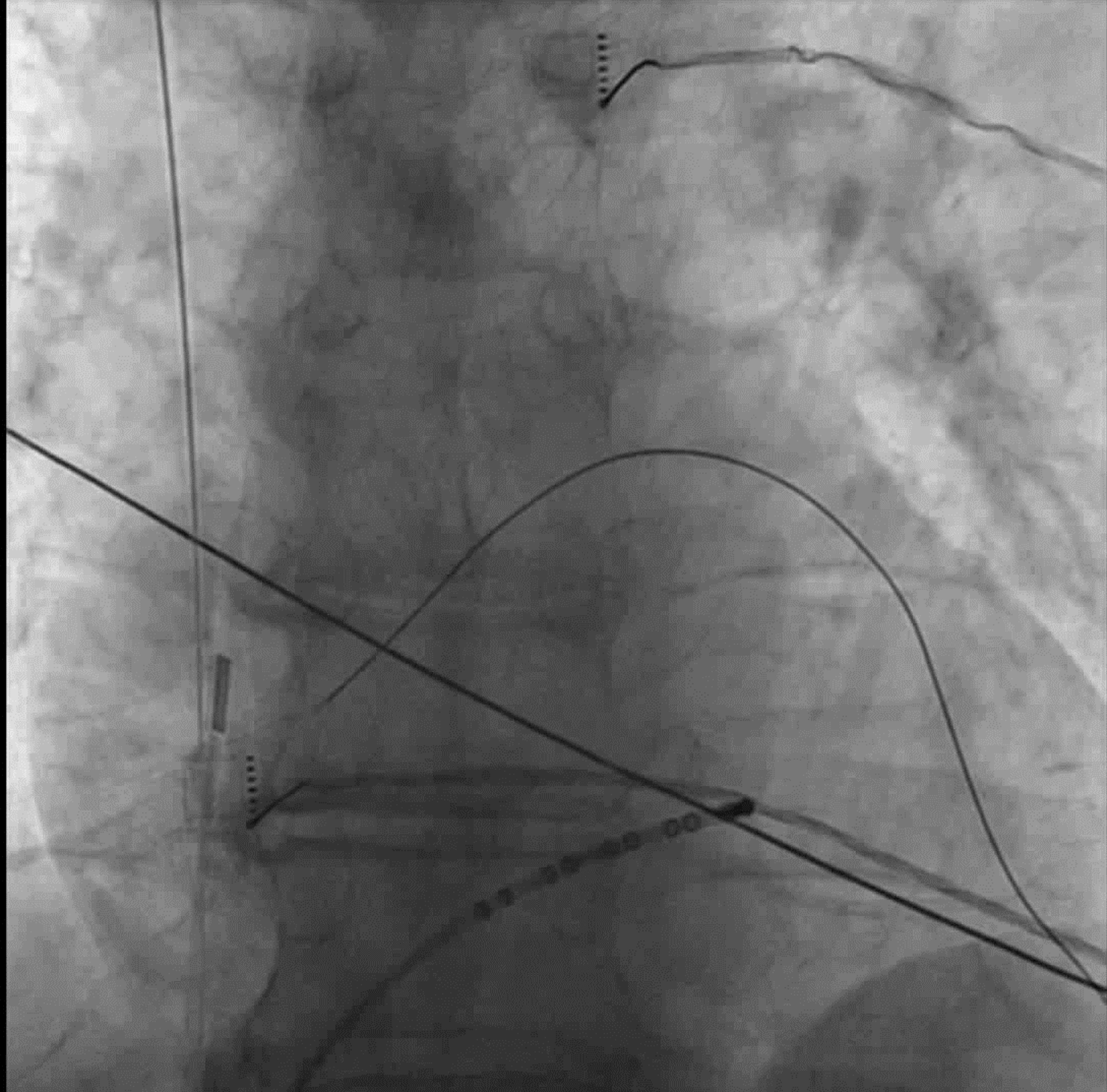


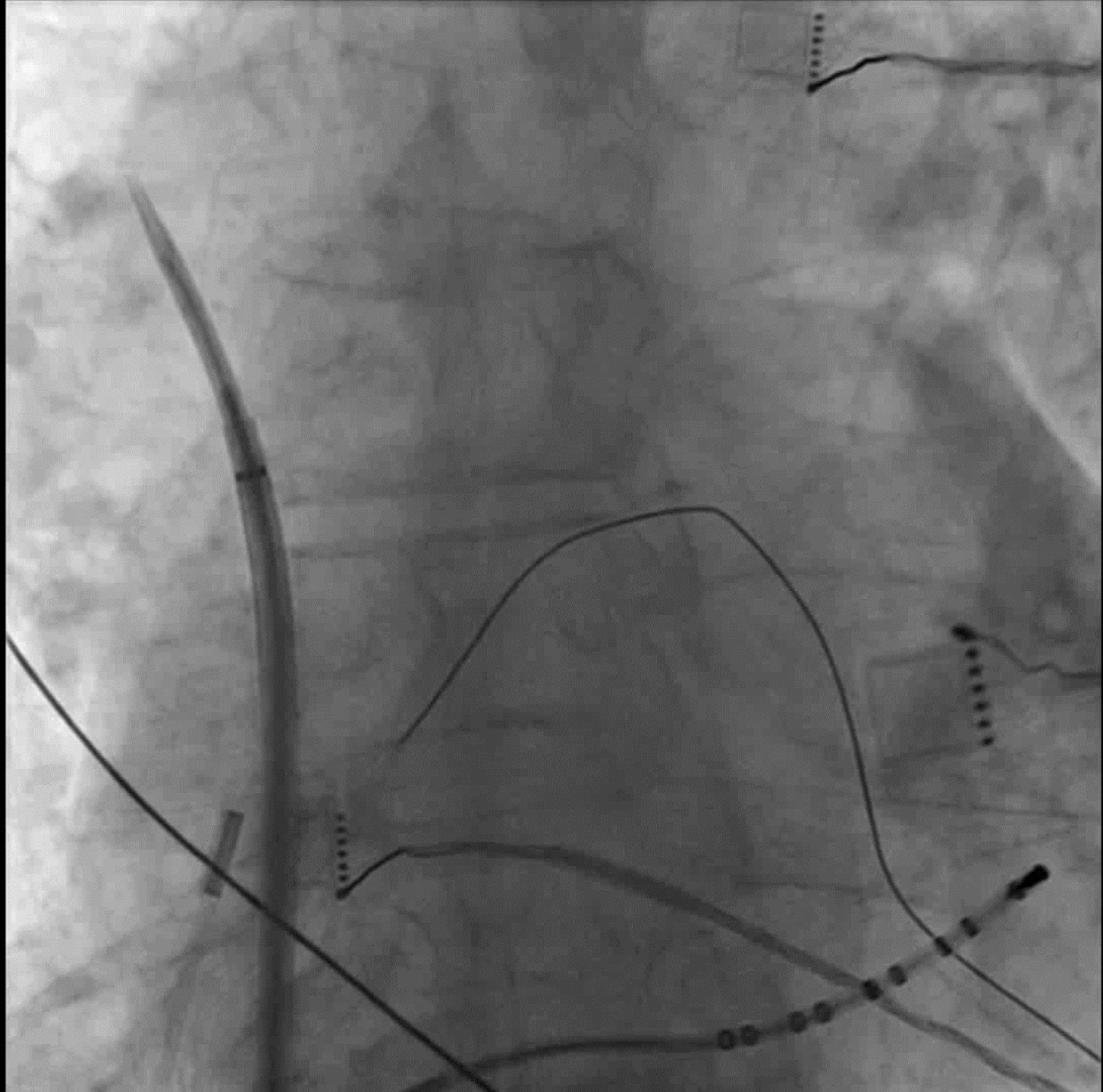
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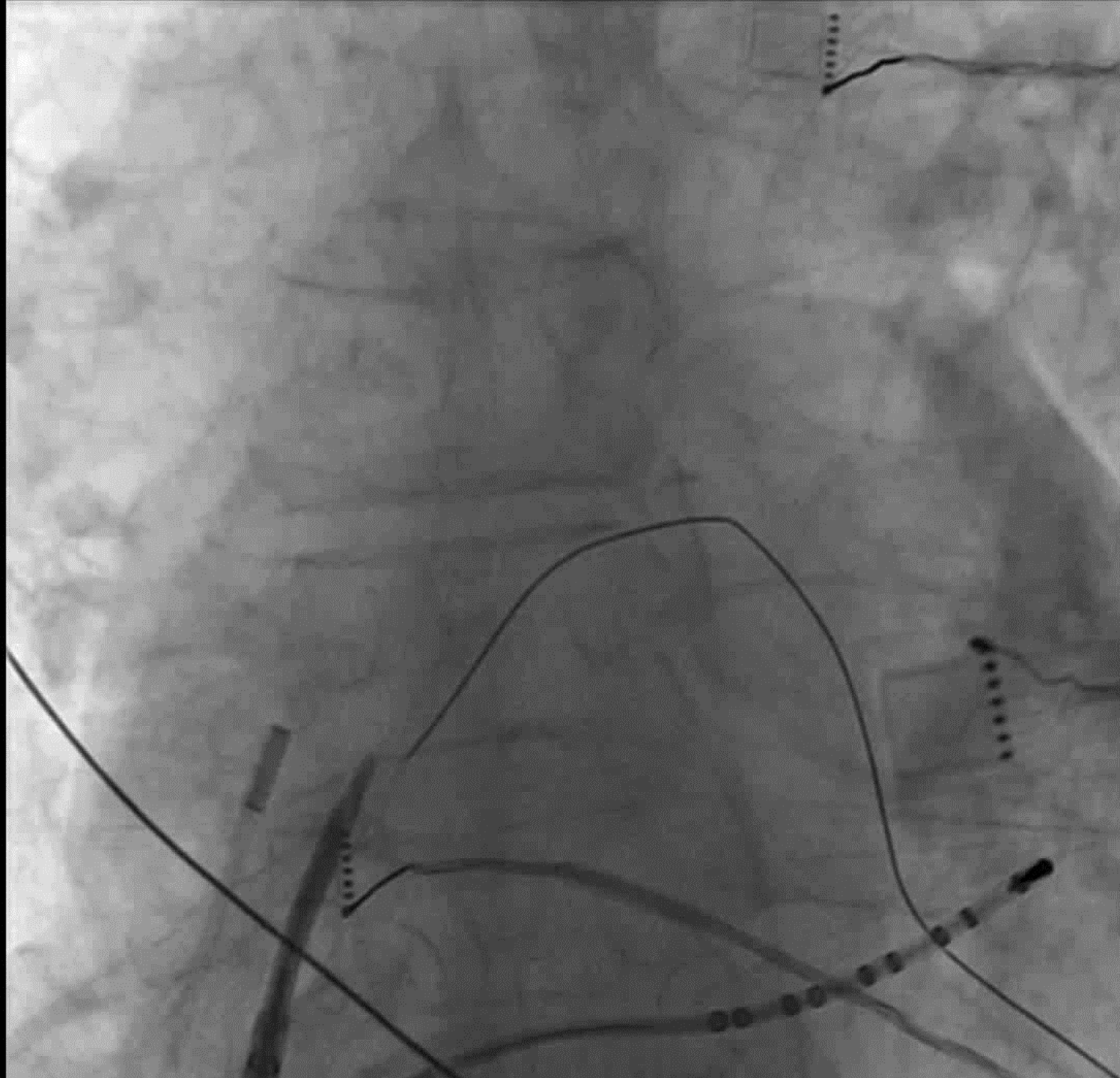


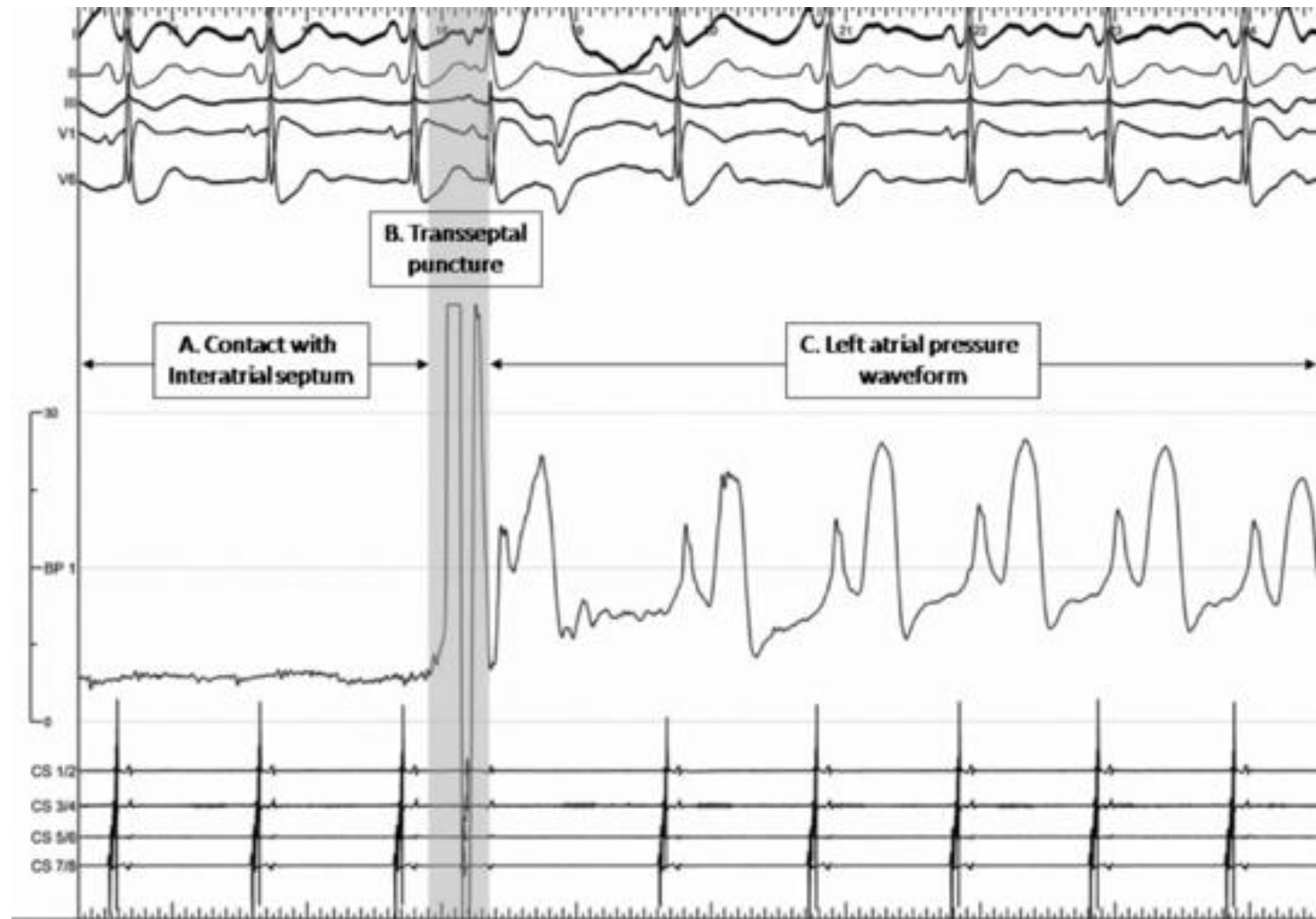
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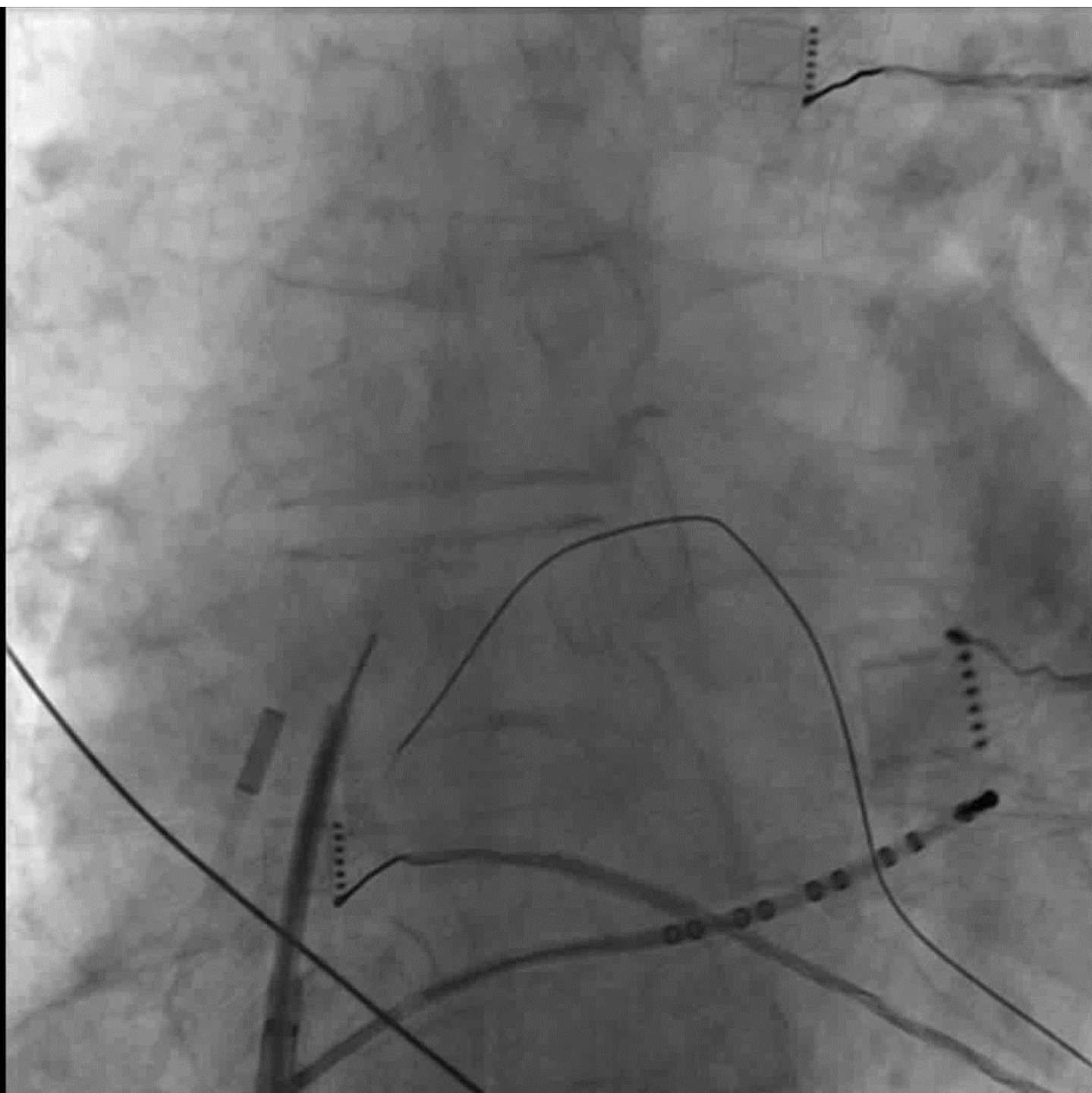


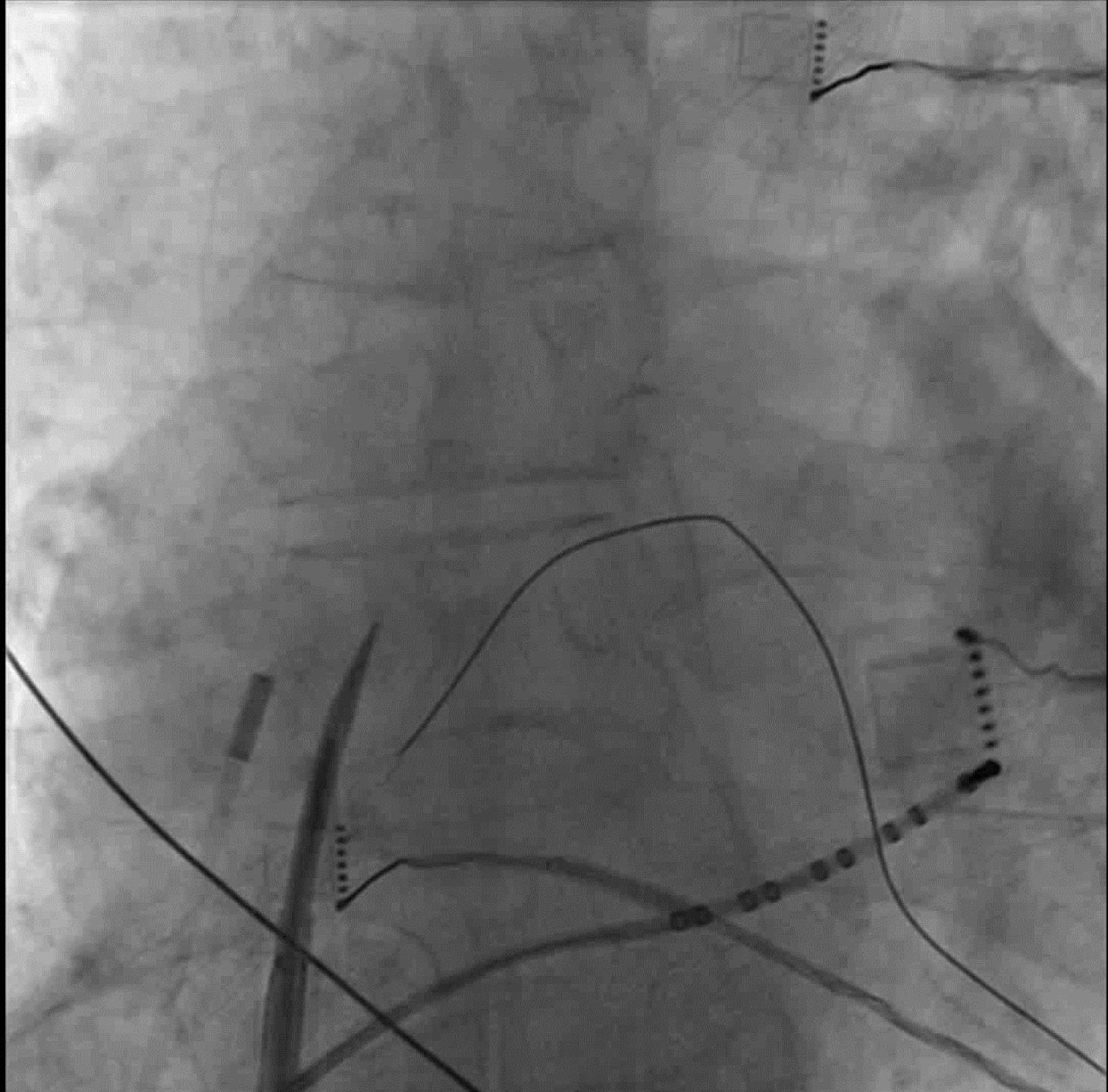




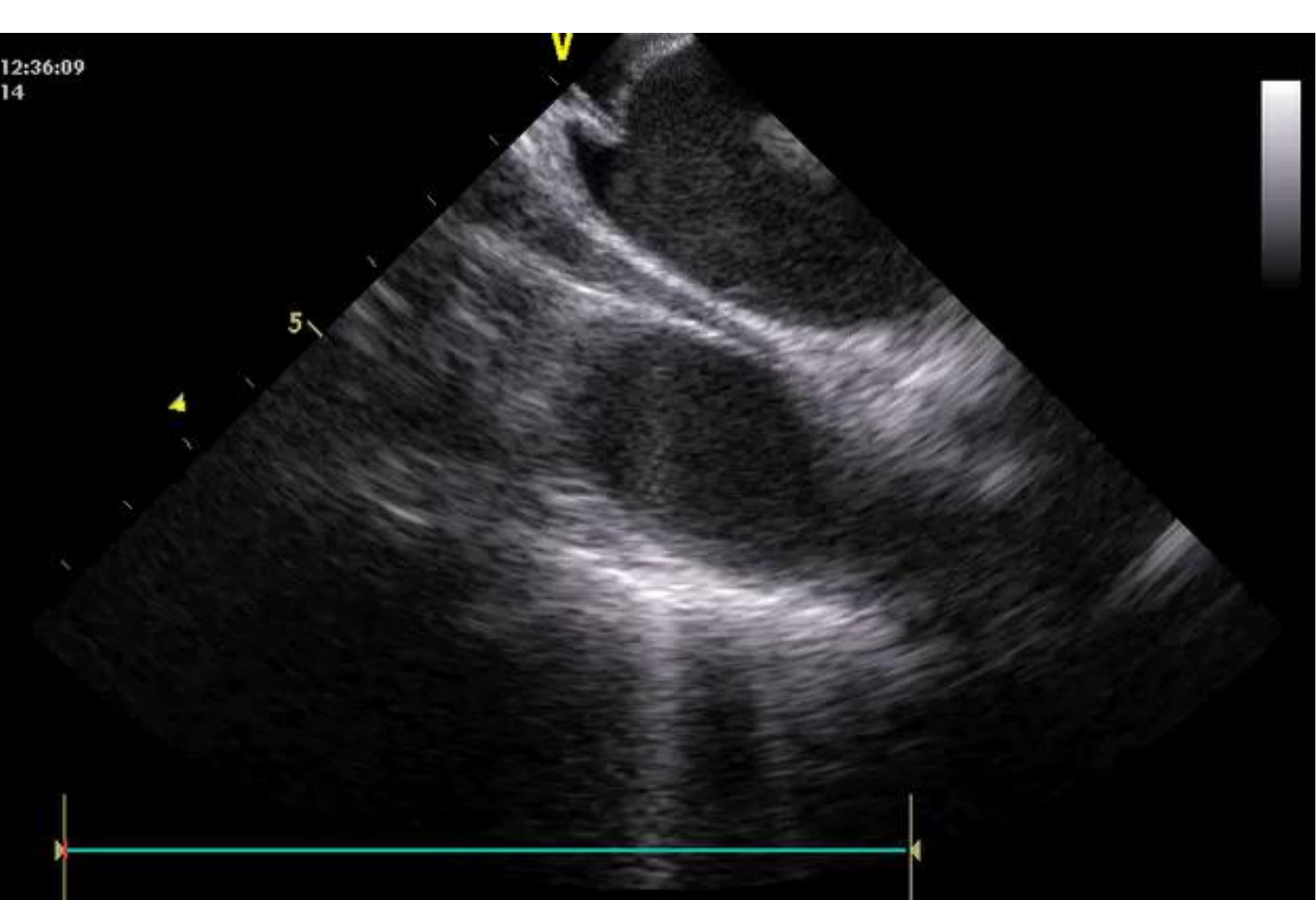






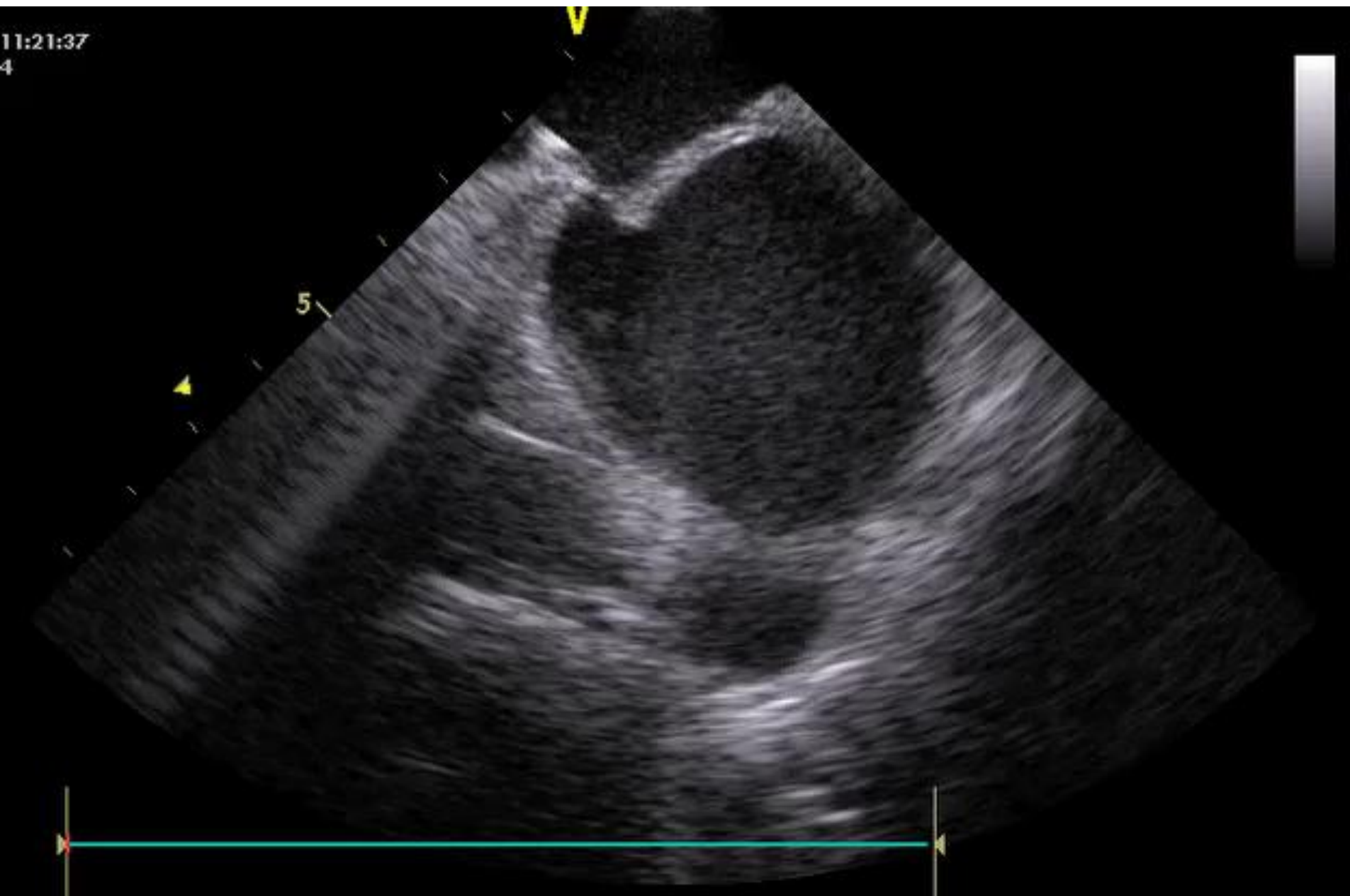


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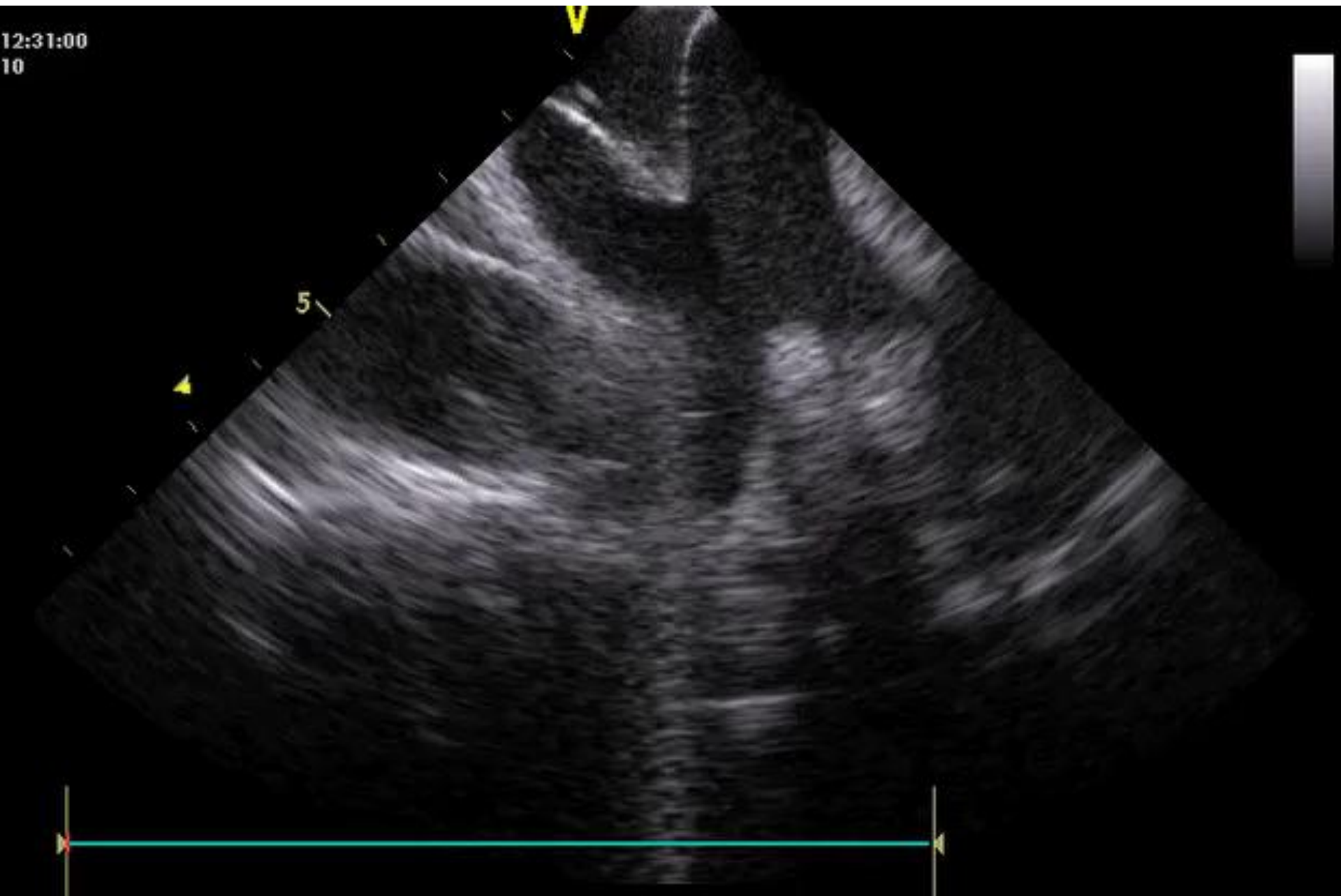
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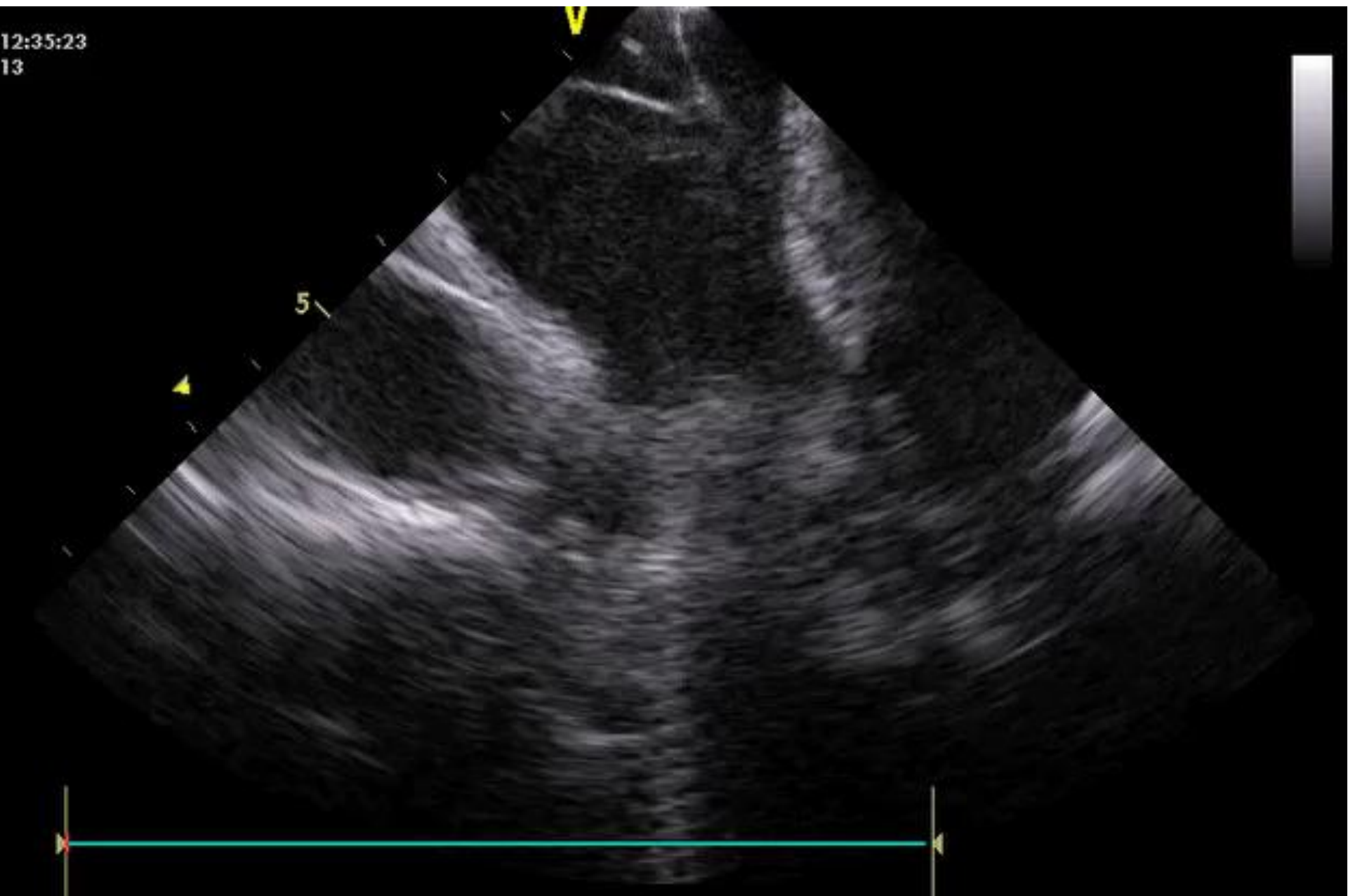
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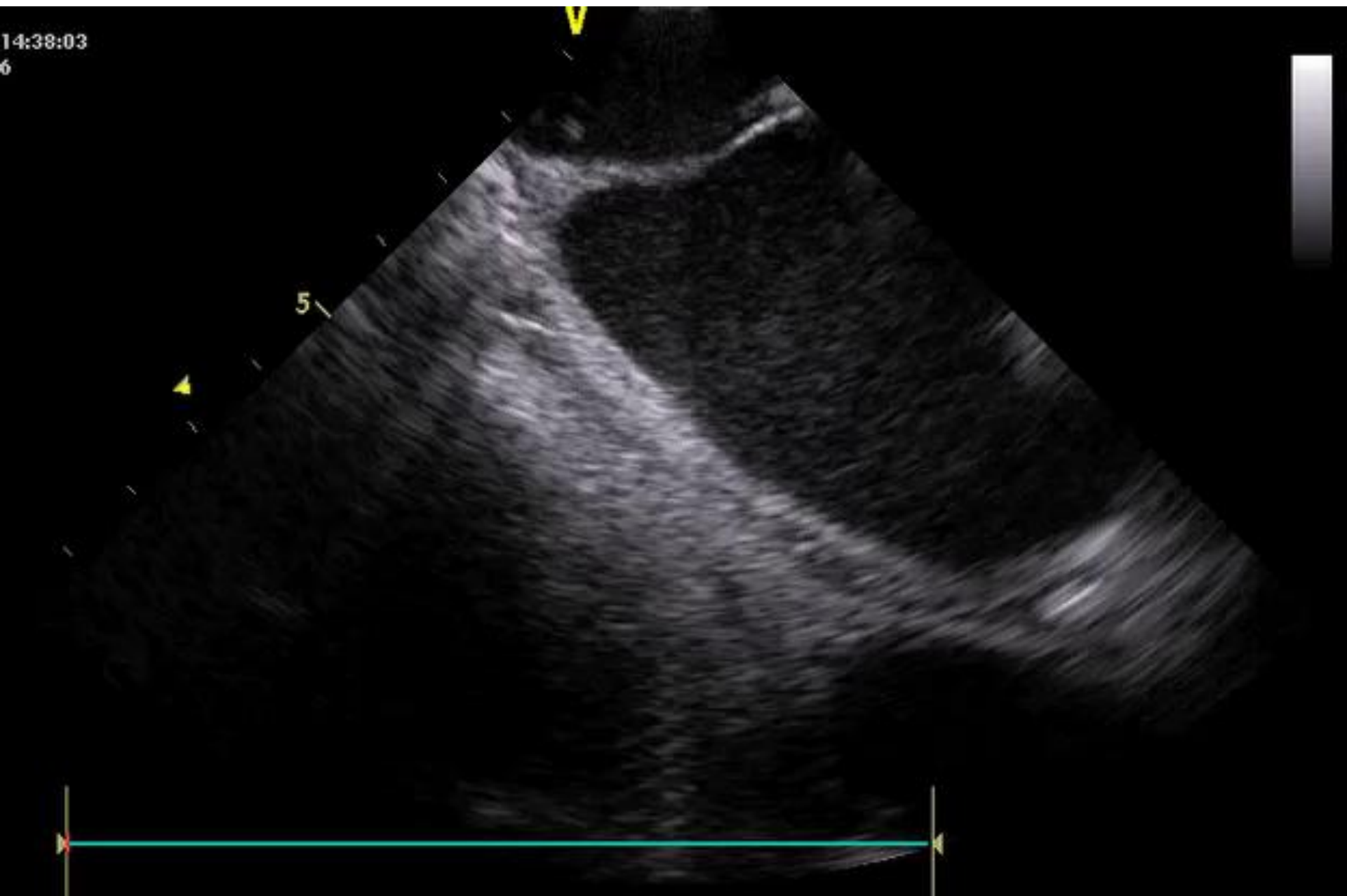
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14:38:03
6



Závěr

- Znalost anatomie (vědět, kde zhruba jsem)
- ICE! – 100% safe
- Zasouvání jen po drátě (katetru). Nejde? Stáhnout a znovu.
- Proplach! (bubliny 0)
- Heparin – plná dávka už před 1. TS punkcí (než zavedu sheath)

