



12. Atriyal Fibrilasyon Zirvesi 2023

8-9 Aralık 2023

Nirvana Cosmopolitan Kongre Merkezi, Antalya



PAF Ablasyonu Sonrası Rekürrensleri Olan Ancak Pulmoner Venleri İzole Olan Hastalarda Yaklaşım

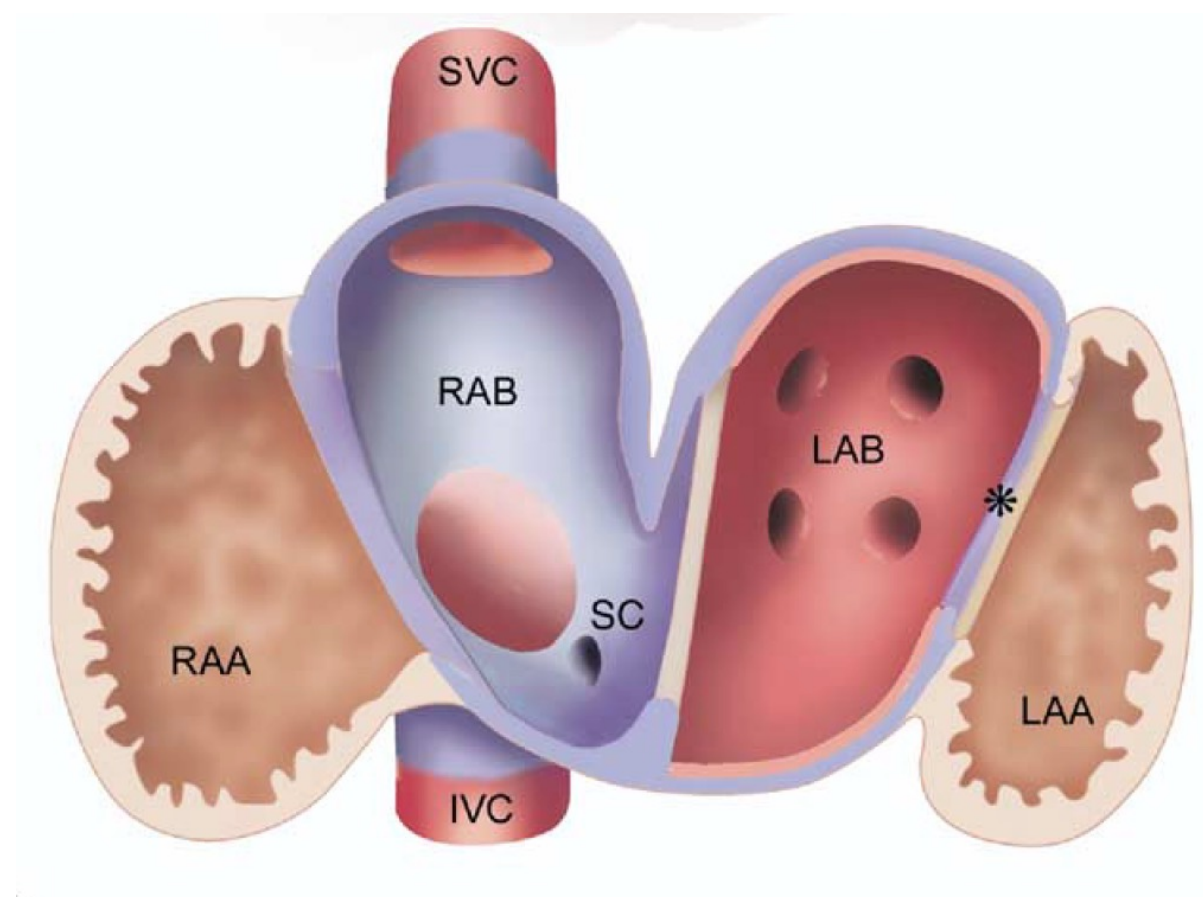
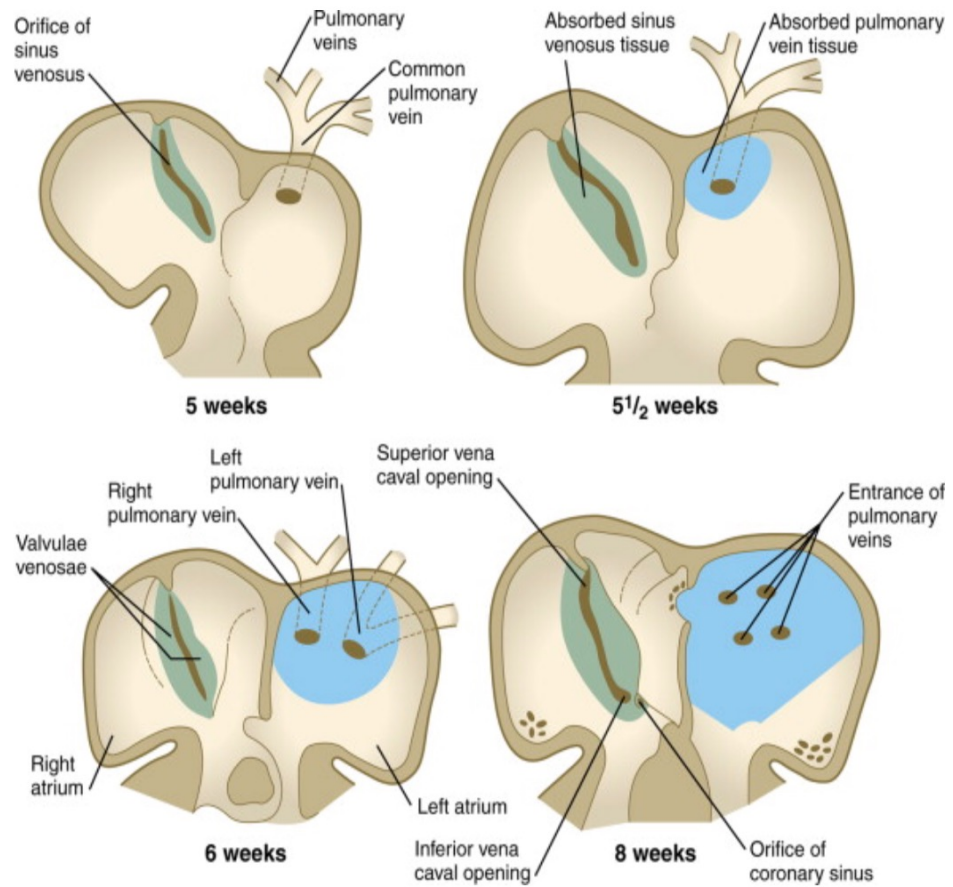
Posterior Duvar İzolasyonu

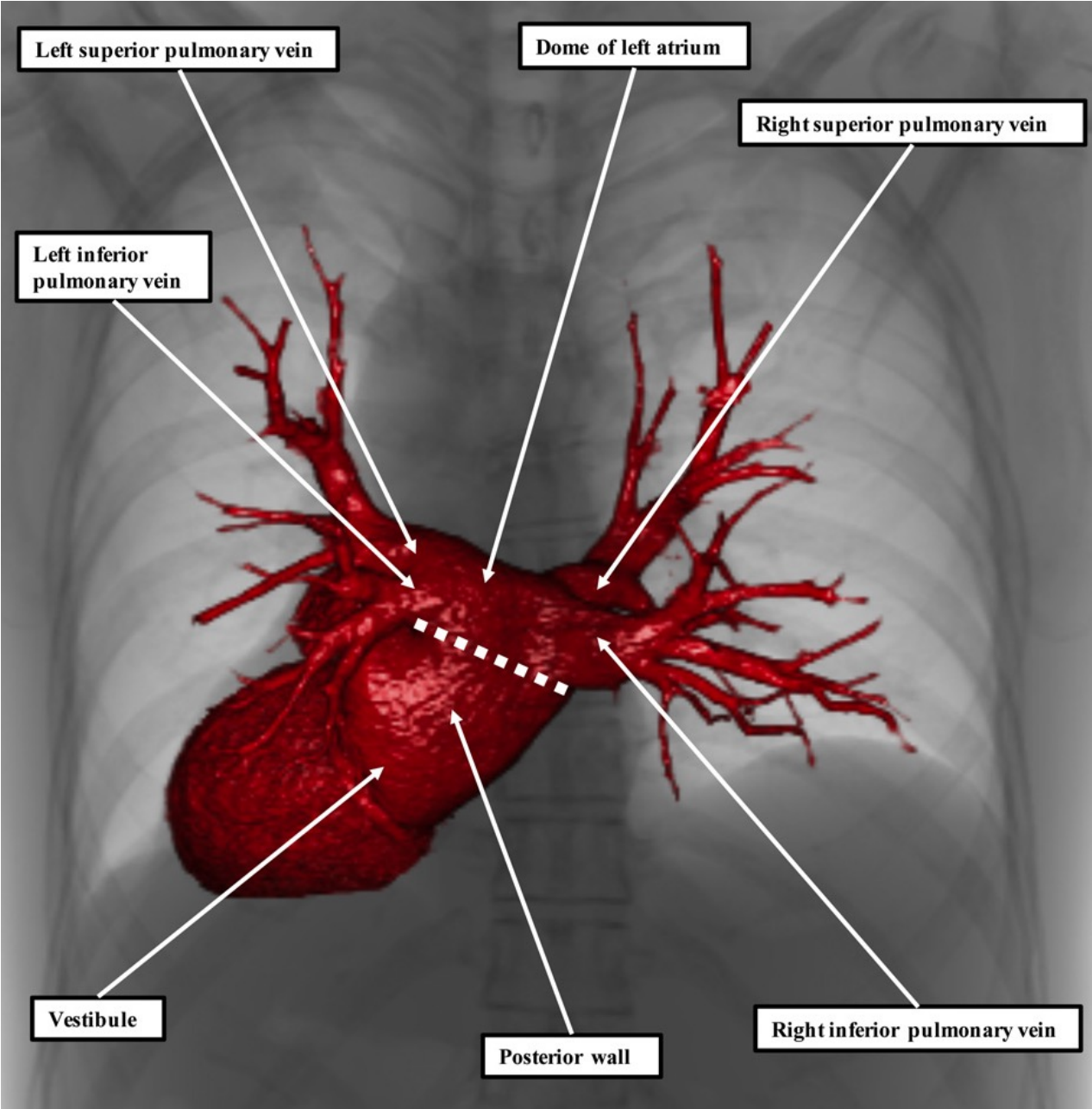
Dr. Umuttan Doğan

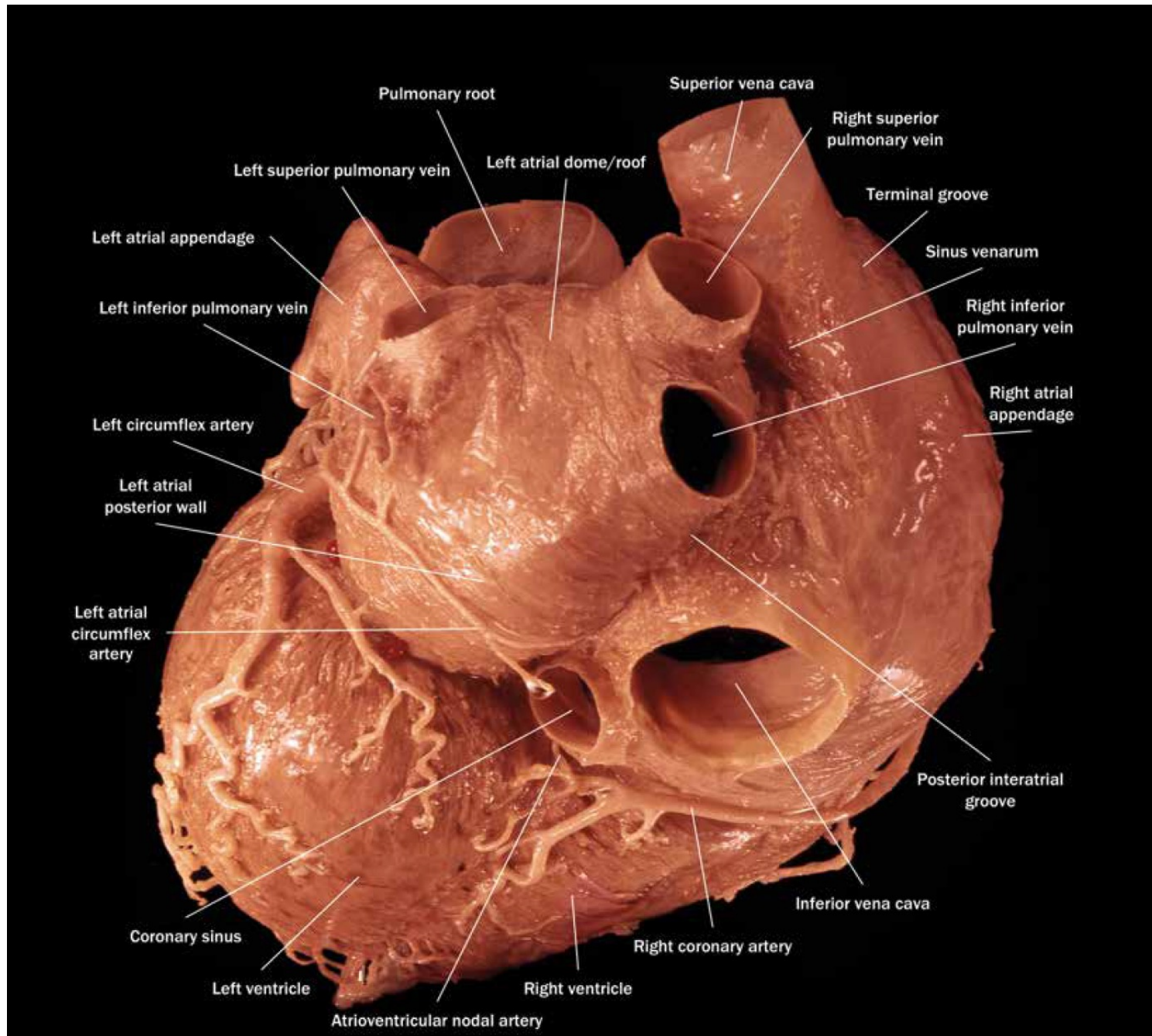
Akdeniz Üniversitesi Tıp Fakültesi Kardiyoloji Anabilim Dalı

Sunum Planı

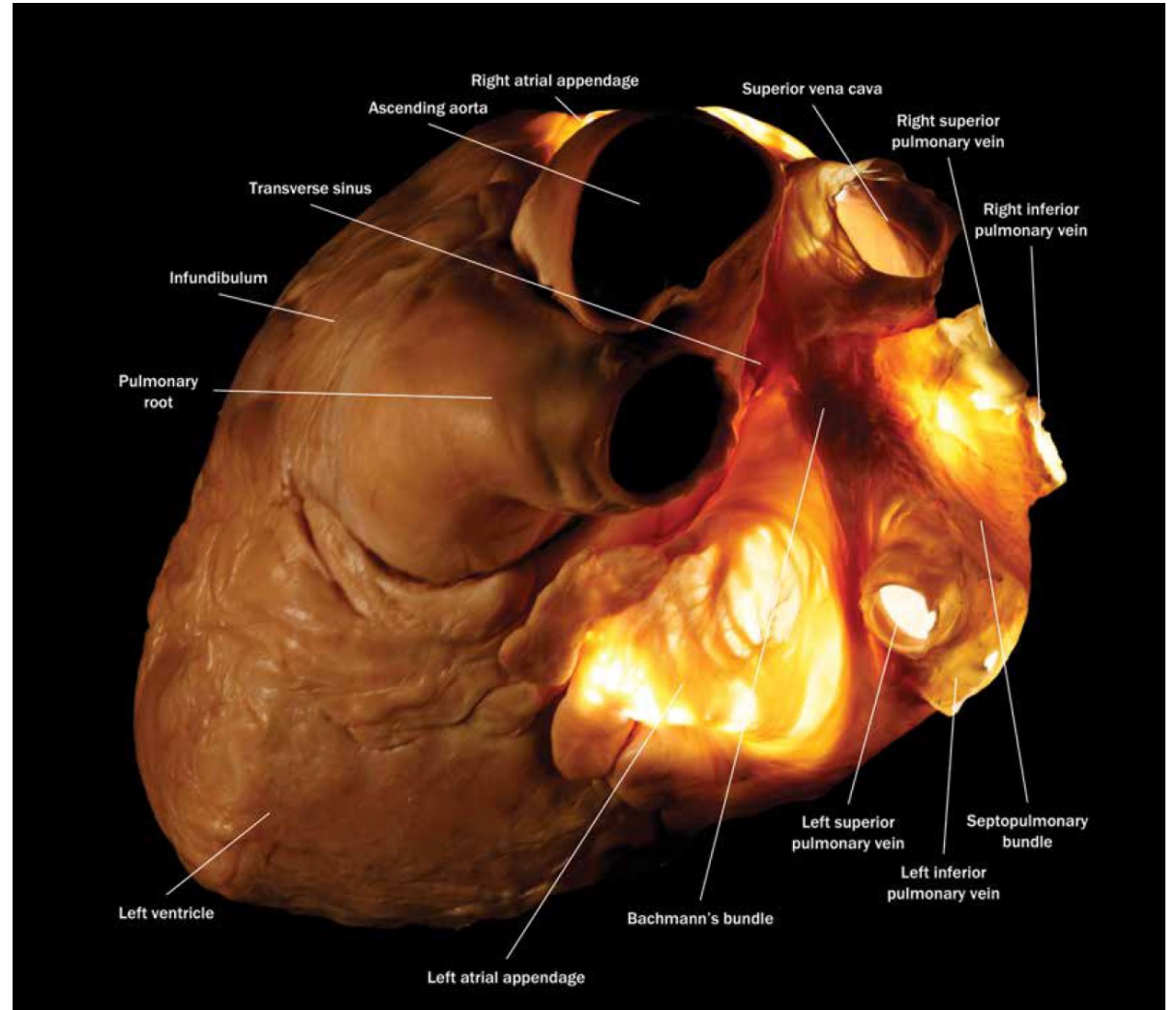
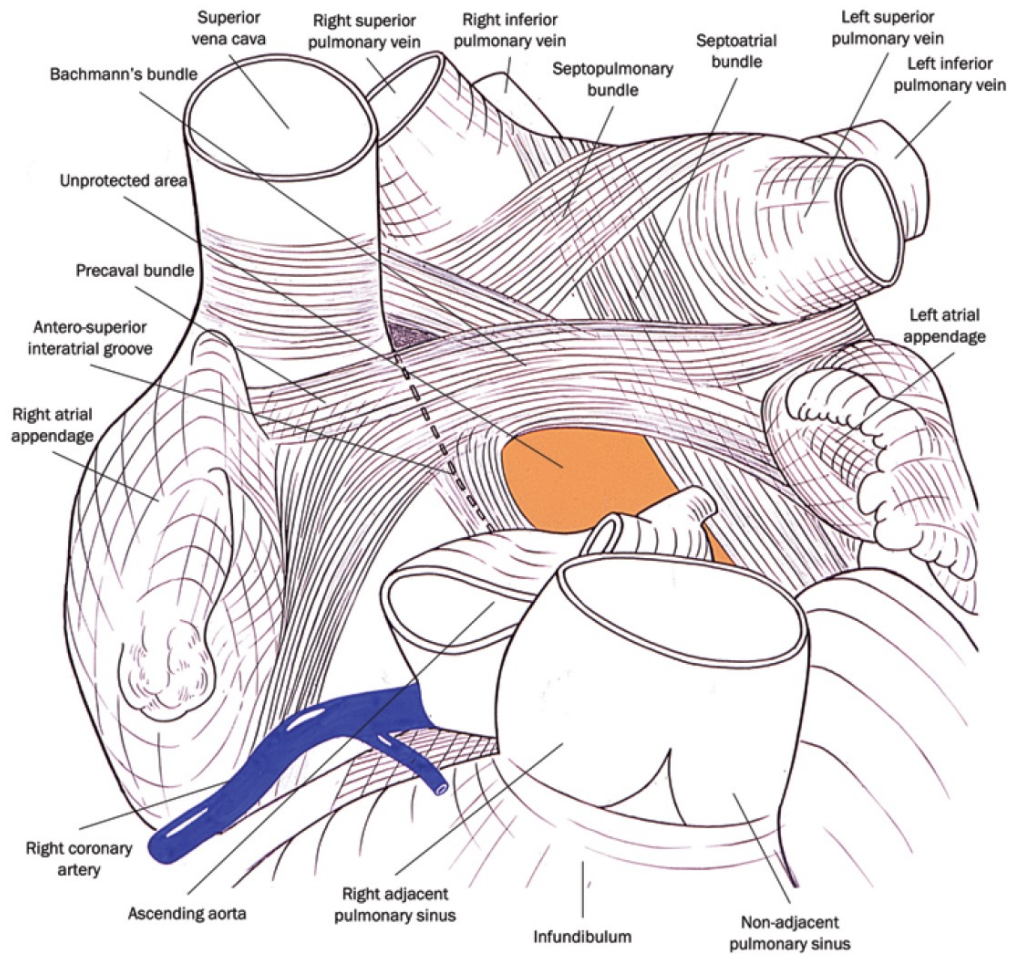
- ✓ *Sol posterior duvarın anatomisi*
- ✓ Sol posterior duvar izolasyonunun mantığı
- ✓ *PAF hastalarında sol posterior duvar izolasyonu ile ilgili çalışmalar*
- ✓ RF ablasyon tekniğı
- ✓ Vaka



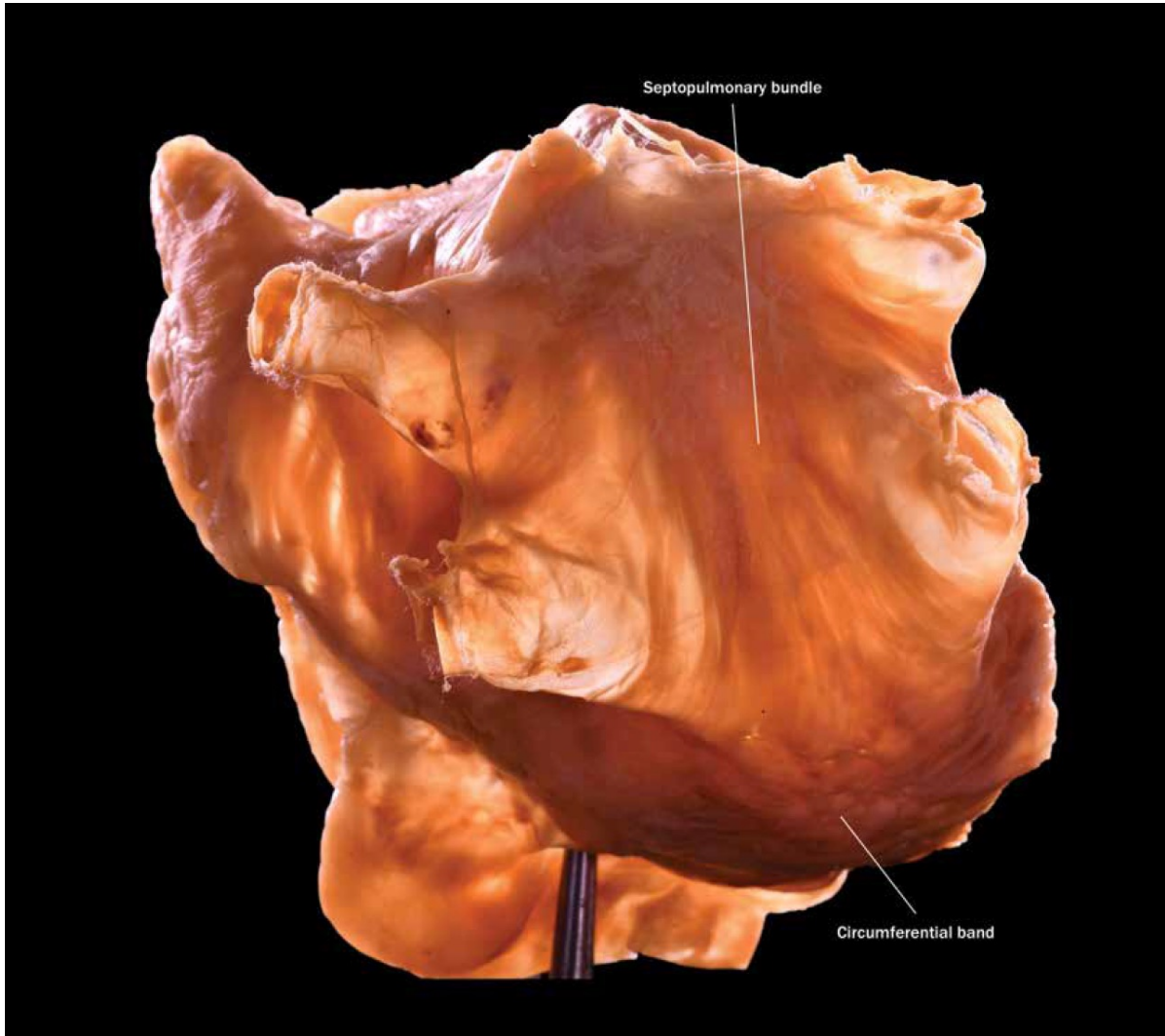
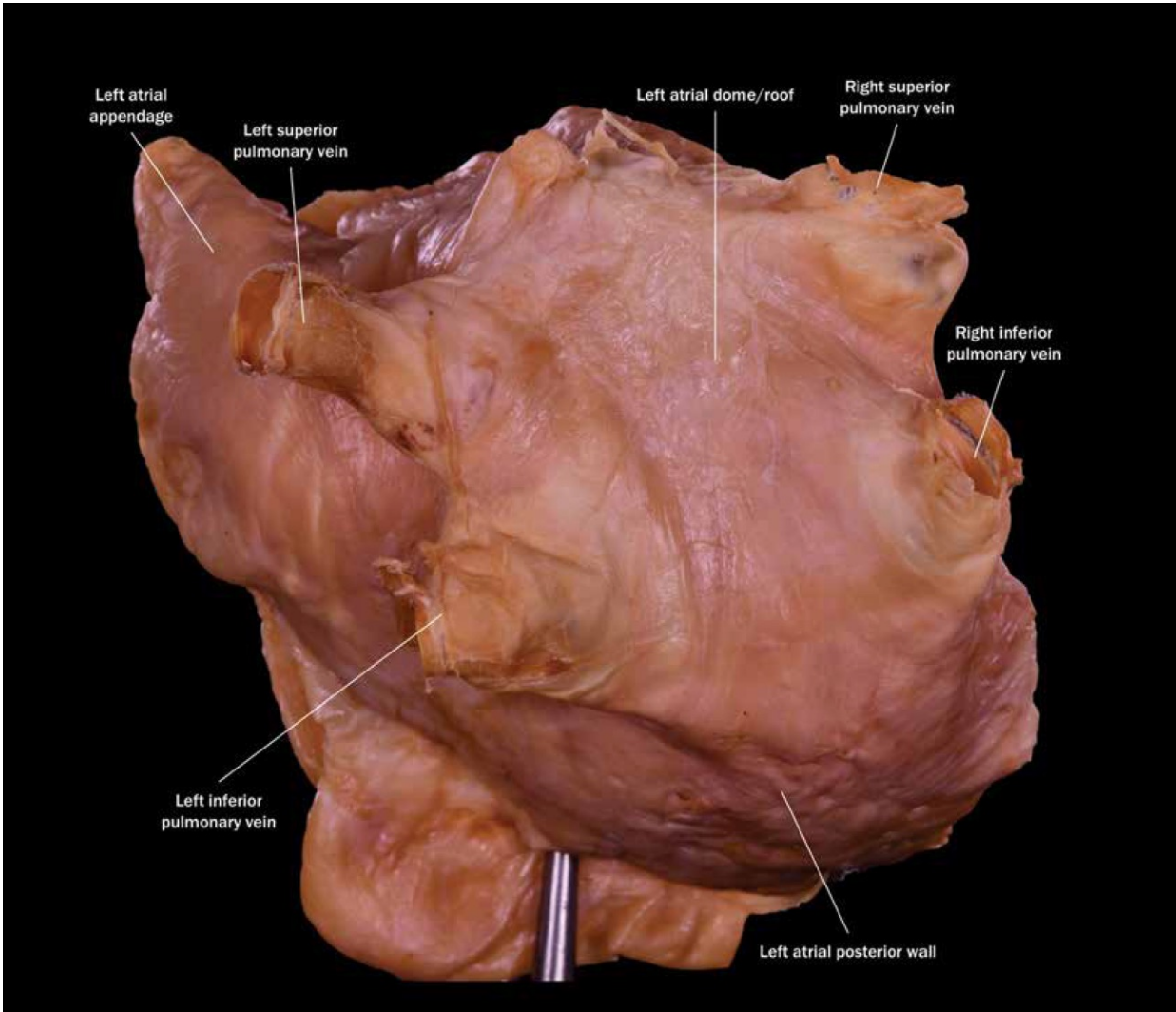




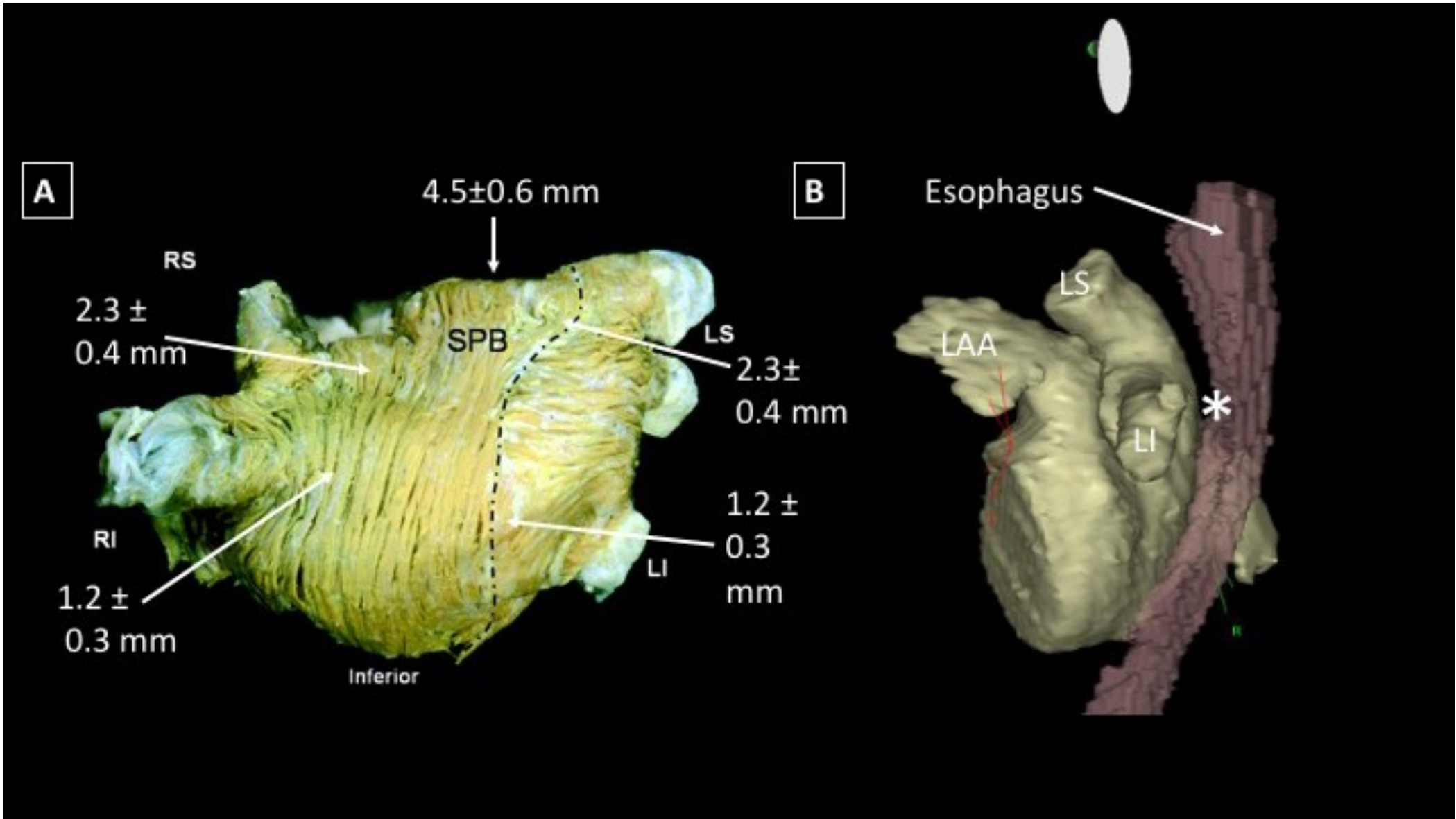
*Nori, Shivkumar.
Atlas of Cardiac Anatomy*



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Atlas of Cardiac Anatomy



*Nori, Shivkumar.
Atlas of Cardiac Anatomy*



Çalışmalar

Metaanalizler

A Recurrence of all atrial arrhythmias

Study	PWI+PVI		PVI		Risk Ratio with 95% CI	Weight (%)
	Yes	No	Yes	No		
David Tamborero 2009	33	27	32	28	1.03 [0.74, 1.43]	18.86
Toon Wei Lim 2012	23	32	34	21	0.68 [0.47, 0.98]	14.57
Hee-Sun Mun 2012	22	30	15	37	1.47 [0.86, 2.50]	7.22
Tae-Hoon Kim 2015	8	42	6	44	1.33 [0.50, 3.56]	2.11
Jin-Seok Kim 2015	10	50	22	38	0.45 [0.24, 0.88]	4.75
Jung Myung Lee 2019	45	57	52	53	0.89 [0.67, 1.19]	24.05
Hirosuke Yamaji 2020	11	46	22	32	0.47 [0.25, 0.88]	5.31
Arash Aryana 2021	20	35	29	26	0.69 [0.45, 1.06]	11.06
Hui-Nam Pak 2021	23	34	28	29	0.82 [0.54, 1.24]	12.07

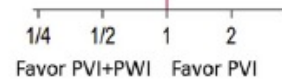
Overall

Heterogeneity: $I^2 = 48.12\%$, $H^2 = 1.93$

Test of $\theta_1 = \theta_2$: $Q(8) = 15.42$, $p = 0.05$

Test of $\theta = 0$: $z = -2.56$, $p = 0.01$

Fixed-effects inverse-variance model



B Recurrence of AF

Study	PWI+PVI		PVI		Risk Ratio with 95% CI	Weight (%)
	Yes	No	Yes	No		
David Tamborero 2009	23	37	24	36	0.96 [0.61, 1.50]	19.67
Toon Wei Lim 2012	23	32	34	21	0.68 [0.47, 0.98]	27.90
Hee-Sun Mun 2012	10	42	6	46	1.67 [0.65, 4.25]	4.47
Tae-Hoon Kim 2015	8	42	6	44	1.33 [0.50, 3.56]	4.05
Jin-Seok Kim 2015	10	50	22	38	0.45 [0.24, 0.88]	9.09
Jung Myung Lee 2019	24	78	21	84	1.18 [0.70, 1.98]	14.57
Arash Aryana 2021	14	41	25	30	0.56 [0.33, 0.96]	13.58
Hui-Nam Pak 2021	8	49	16	41	0.50 [0.23, 1.07]	6.69

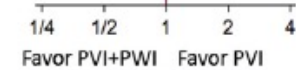
Overall

Heterogeneity: $I^2 = 45.36\%$, $H^2 = 1.83$

Test of $\theta_1 = \theta_2$: $Q(7) = 12.81$, $p = 0.08$

Test of $\theta = 0$: $z = -2.54$, $p = 0.01$

Fixed-effects inverse-variance model



C Recurrence of AT/AFL

Study	PWI+PVI		PVI		Risk Ratio with 95% CI	Weight (%)
	Yes	No	Yes	No		
Toon Wei Lim 2012	33	22	31	24	1.06 [0.78, 1.46]	60.96
Jung Myung Lee 2019	3	99	4	101	0.77 [0.18, 3.36]	2.83
Hui-Nam Pak 2021	23	34	28	29	0.82 [0.54, 1.24]	36.21

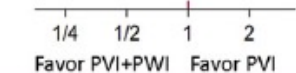
Overall

Heterogeneity: $I^2 = 0.00\%$, $H^2 = 0.52$

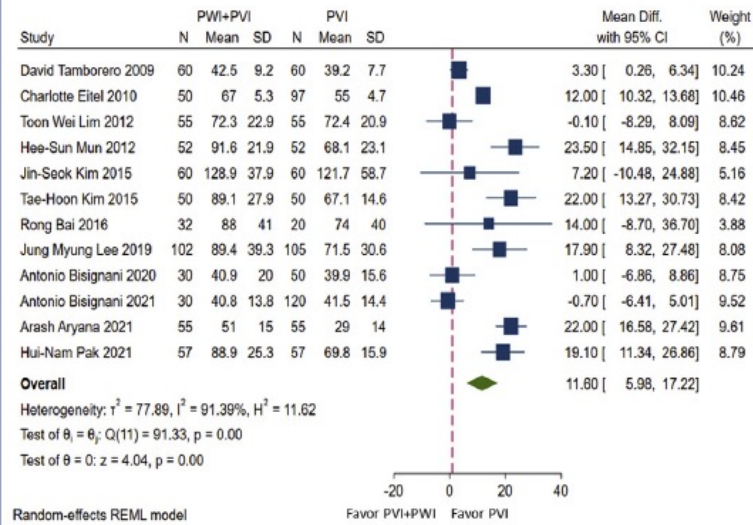
Test of $\theta_1 = \theta_2$: $Q(2) = 1.04$, $p = 0.59$

Test of $\theta = 0$: $z = -0.32$, $p = 0.75$

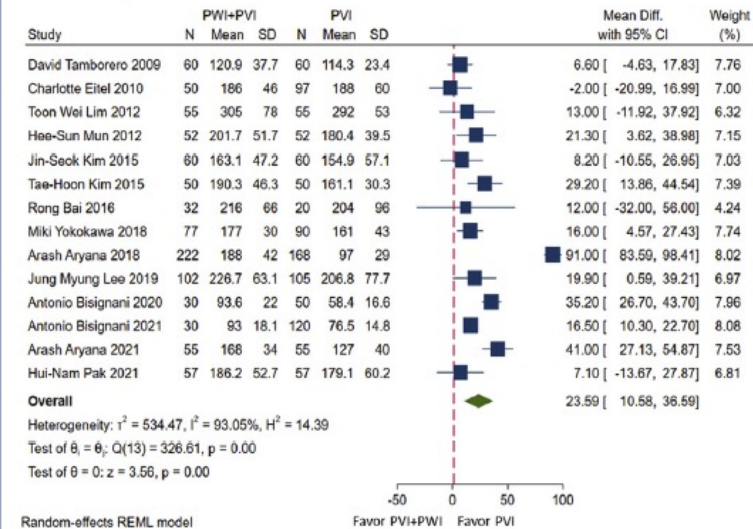
Fixed-effects inverse-variance model



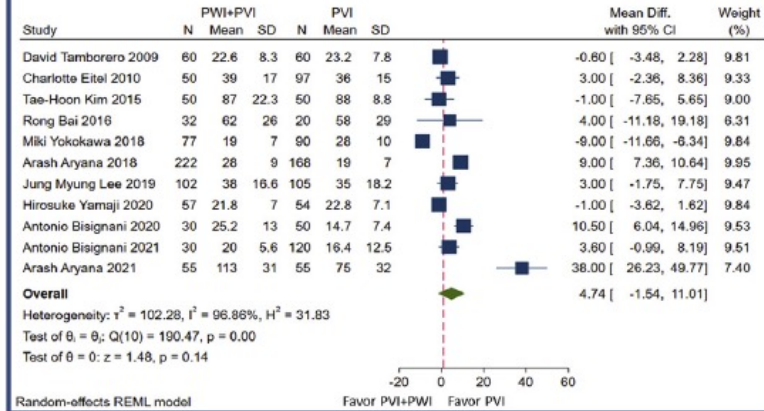
A Ablation time



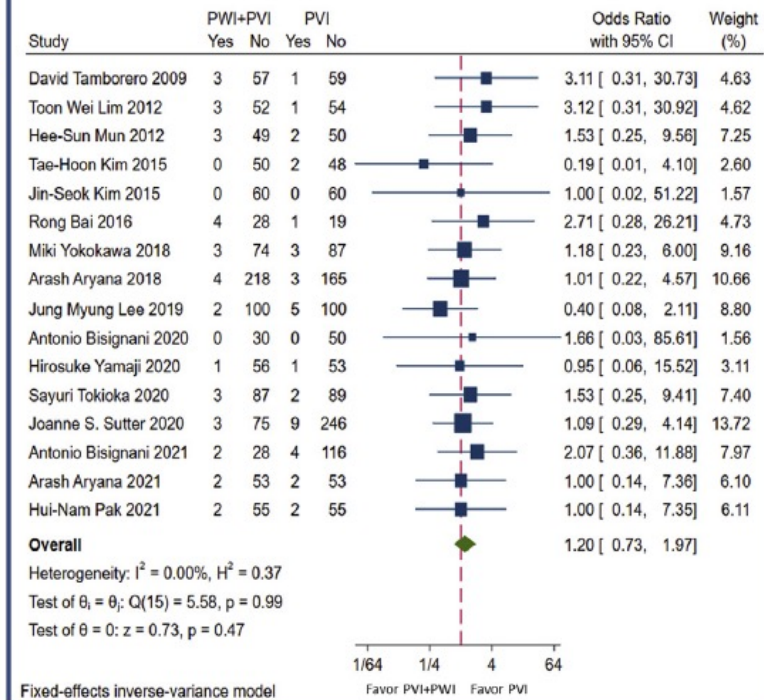
B Total procedure time



C Fluoroscopy time

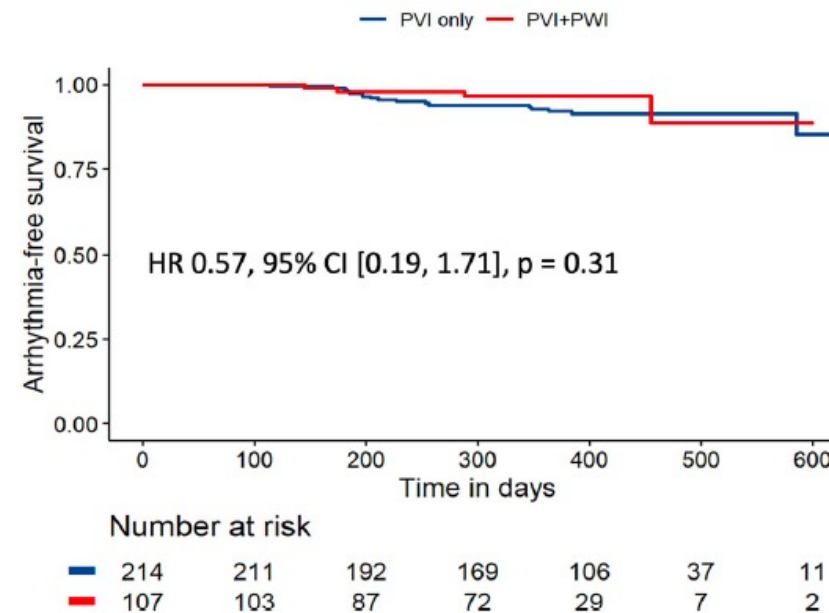
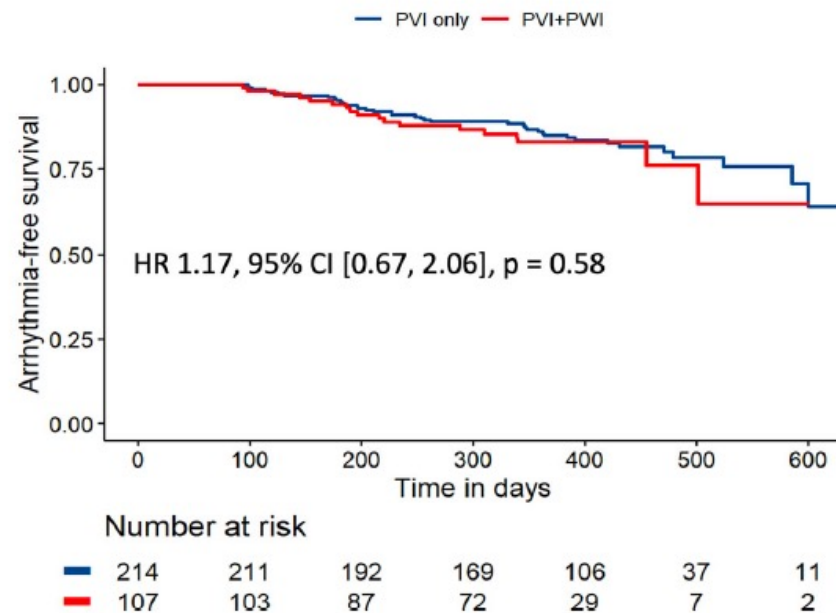


D Procedural adverse events



First Author	PVI Only	PVI+PWI	PWI Strategy	Follow-Up (mo)
Bisignani et al ¹⁶	50	30	Direct cryoballoon ablation	12
Mun et al ¹⁷	52	52	RFA (posterior box)	15.6 ± 5.0
Kim et al ¹⁸	50	50	RFA (posterior box)	16.3 ± 4.0

Outcomes of posterior wall isolation with pulmonary vein isolation for paroxysmal atrial fibrillation



Original Investigation

FREE

January 10, 2023

Effect of Catheter Ablation Using Pulmonary Vein Isolation With vs Without Posterior Left Atrial Wall Isolation on Atrial Arrhythmia Recurrence in Patients With Persistent Atrial Fibrillation The CAPLA Randomized Clinical Trial

Peter M. Kistler, MBBS, PhD^{1,2,3,4,5,6}; David Chieng, MBBS^{1,2,3,4}; Hariharan Sugumar, MBBS, PhD^{1,2,3,4}; [et al](#)

» [Author Affiliations](#) | [Article Information](#)

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FOCUS ON ADVANCES IN MEDICAL TECHNOLOGY

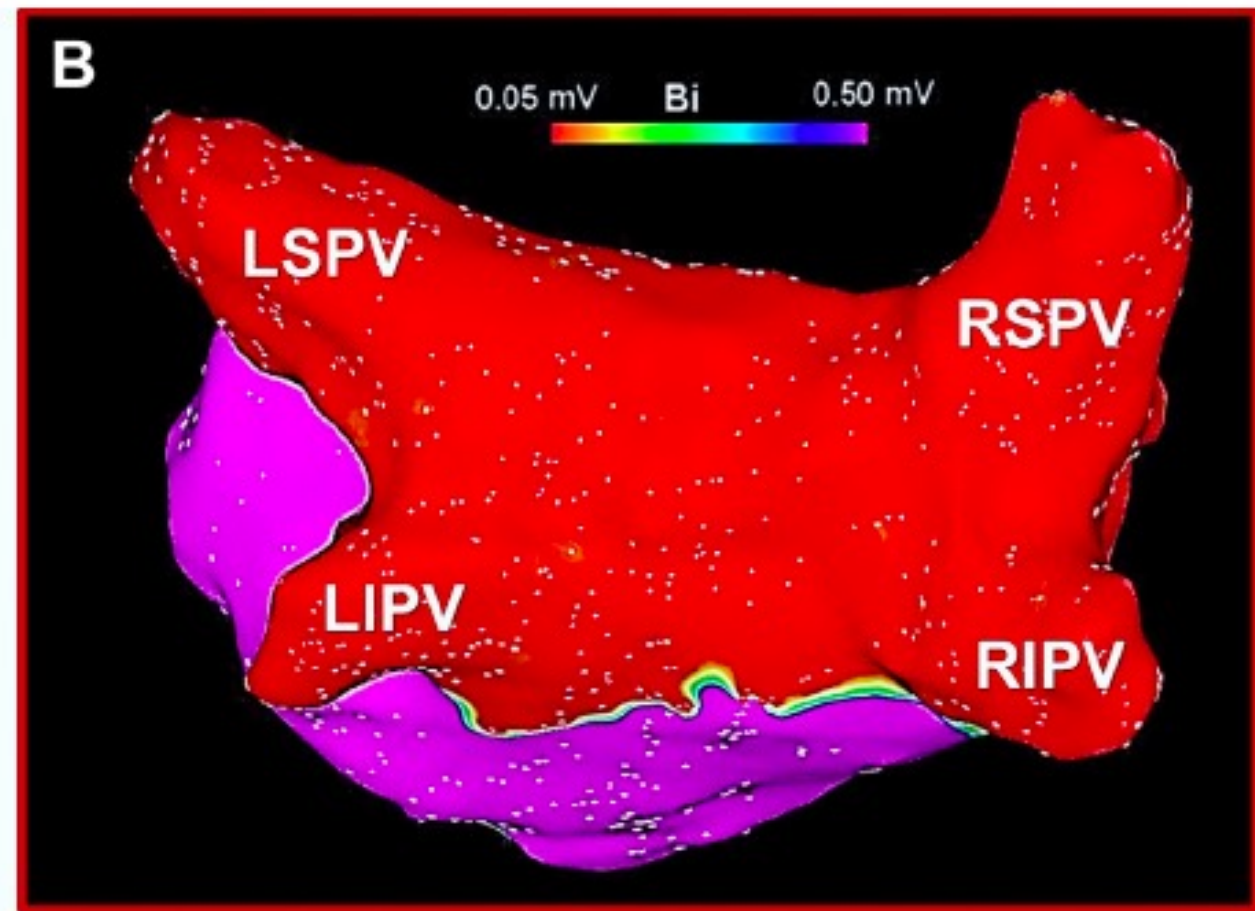
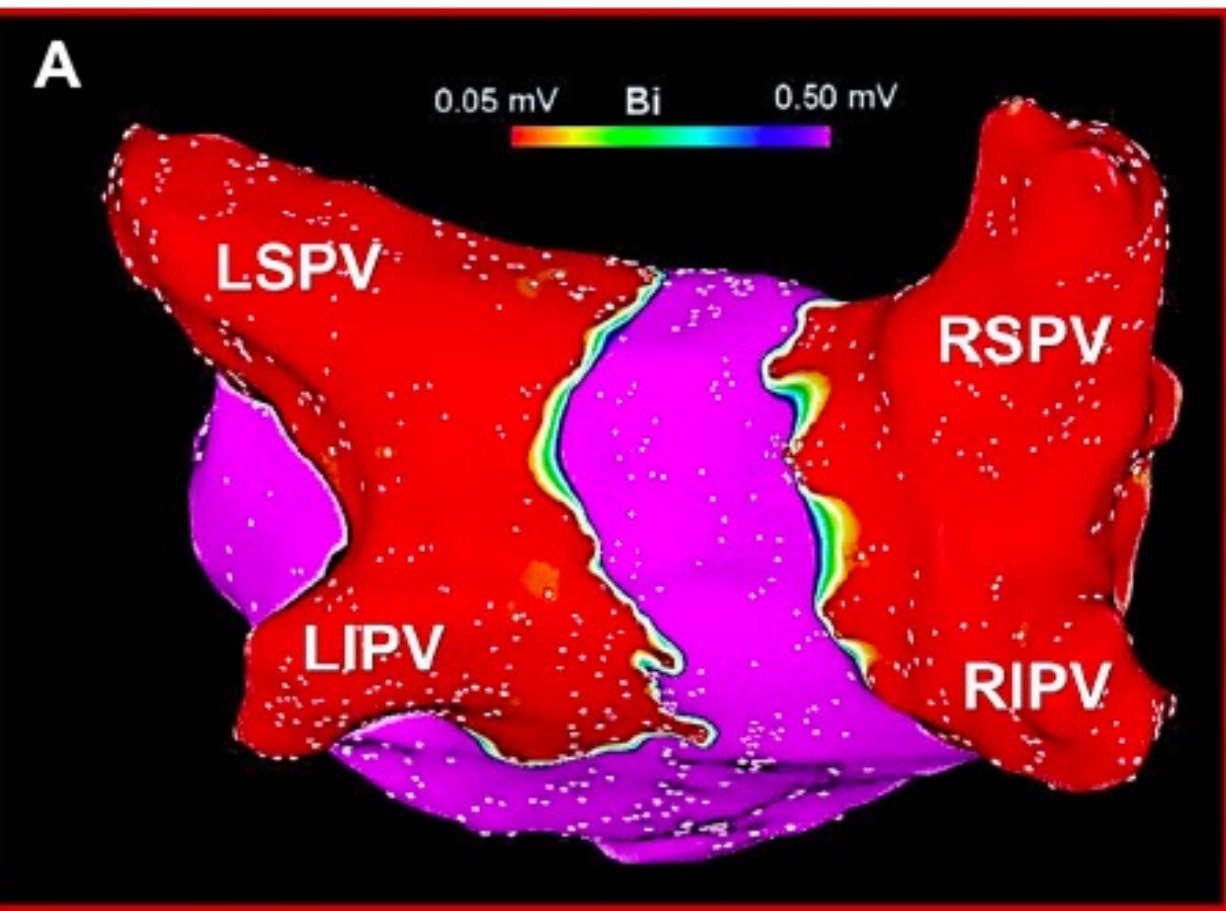
ORIGINAL RESEARCH: CATHETER ABLATION - ATRIAL FIBRILLATION

Pulmonary Vein Isolation With and Without Posterior Wall Isolation in Paroxysmal Atrial Fibrillation

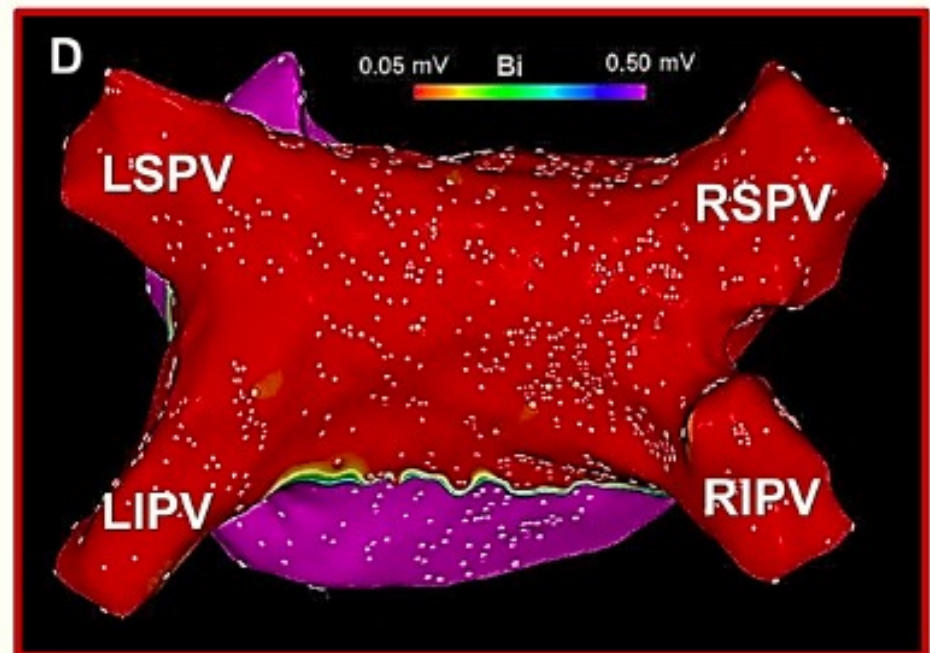
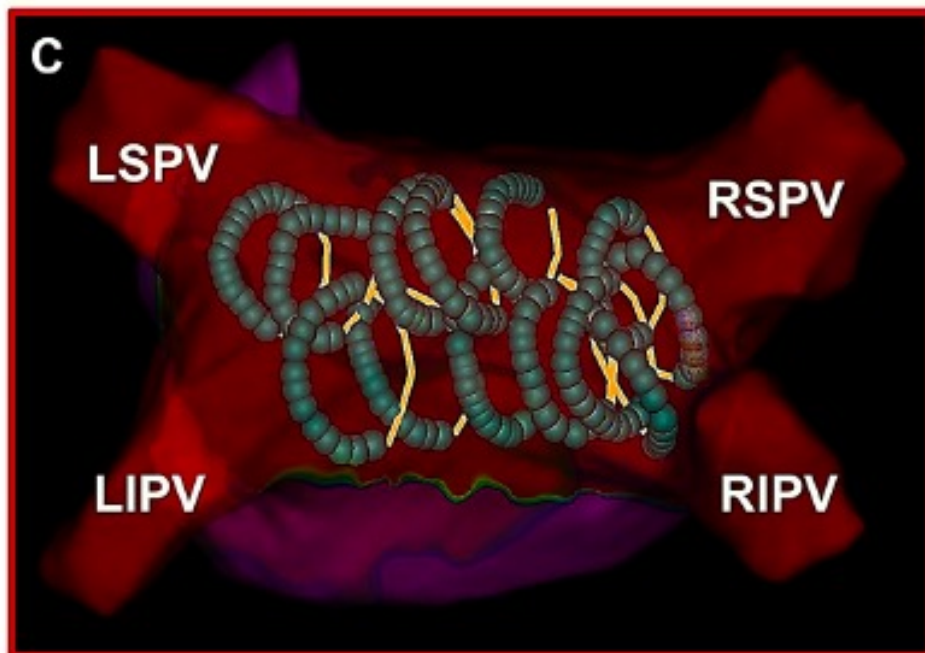
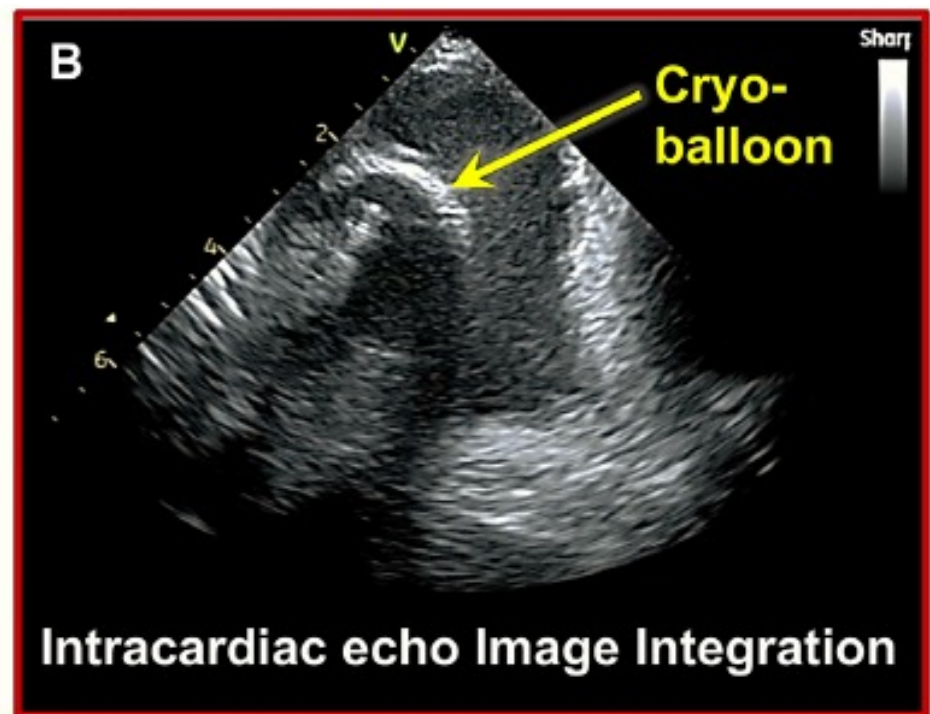
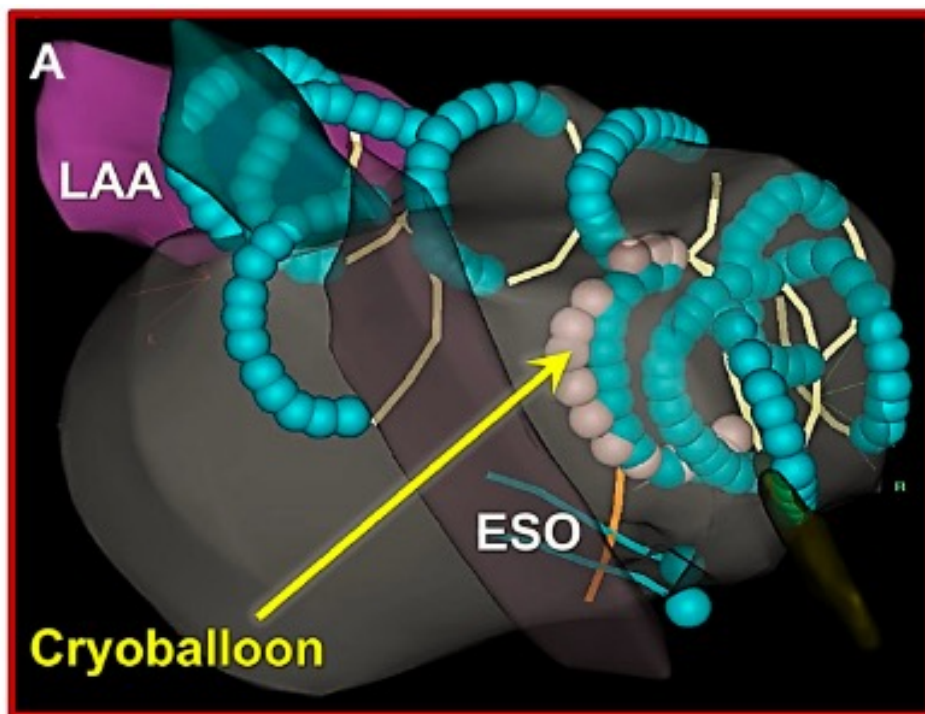
IMPROVE-PAF Trial

Arash Aryana, MD, PhD,^a Anna M. Thiemann, BA,^b Deep K. Pujara, MBBS, MPH,^c Laura L. Cossette, FNP-C, MSN,^a Shelley L. Allen, BSN, CCRC, RN,^a Mark R. Bowers, MS, MD,^a Maheer Gandhavadi, MD,^d Russell Heath, MD,^e Amar D. Trivedi, MD,^e Padraig Gearoid O'Neill, MD,^a Ethan R. Ellis, MD,^e André d'Avila, MD, PhD^f





Improved-PAF Trial



*Improved-PAF
Trial*

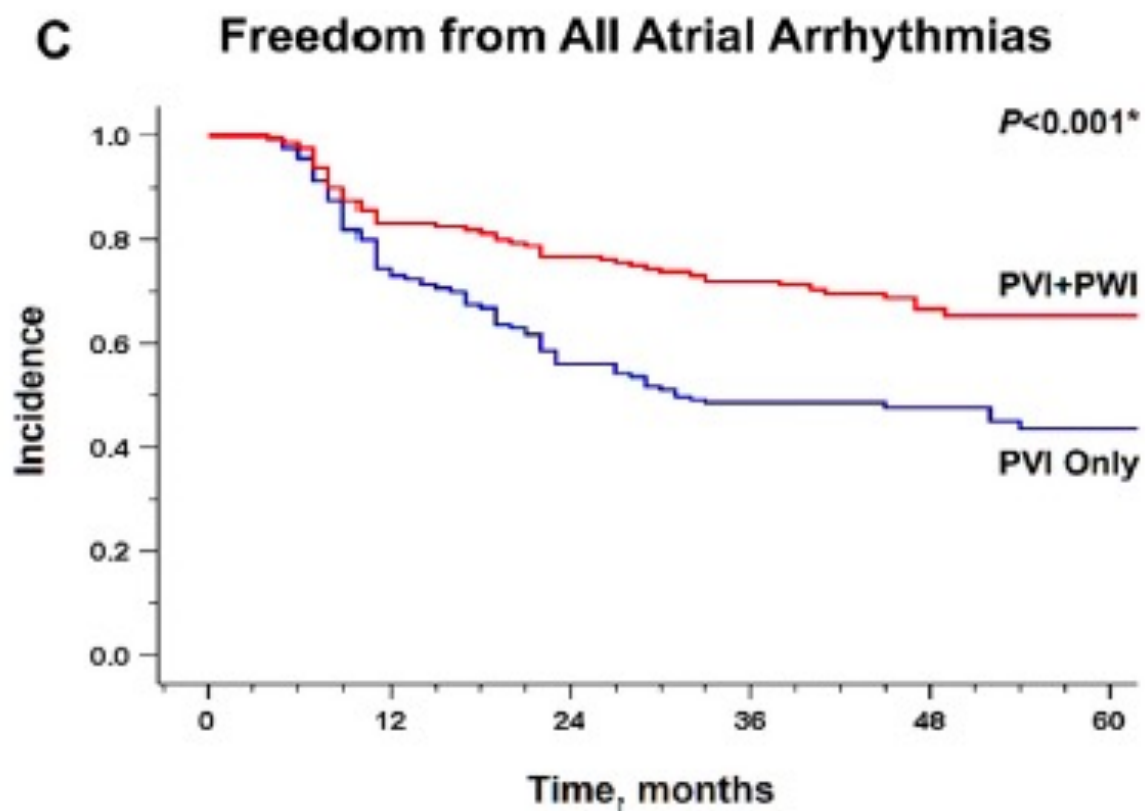
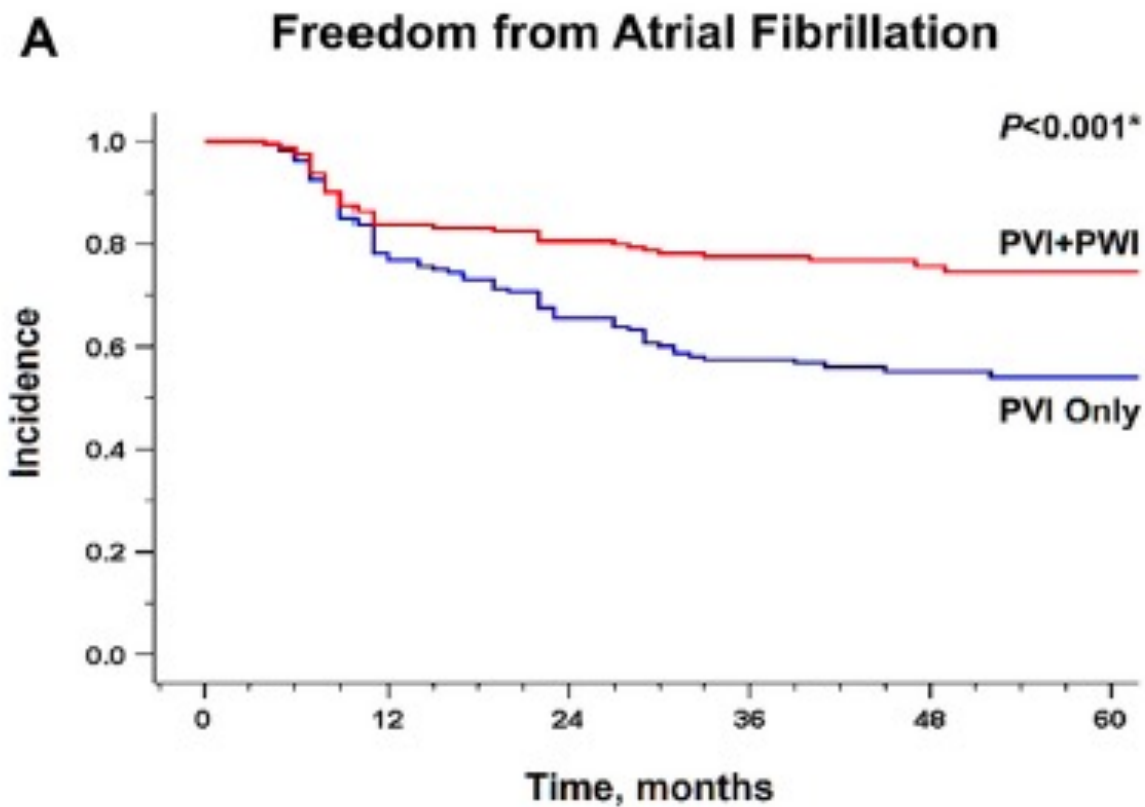
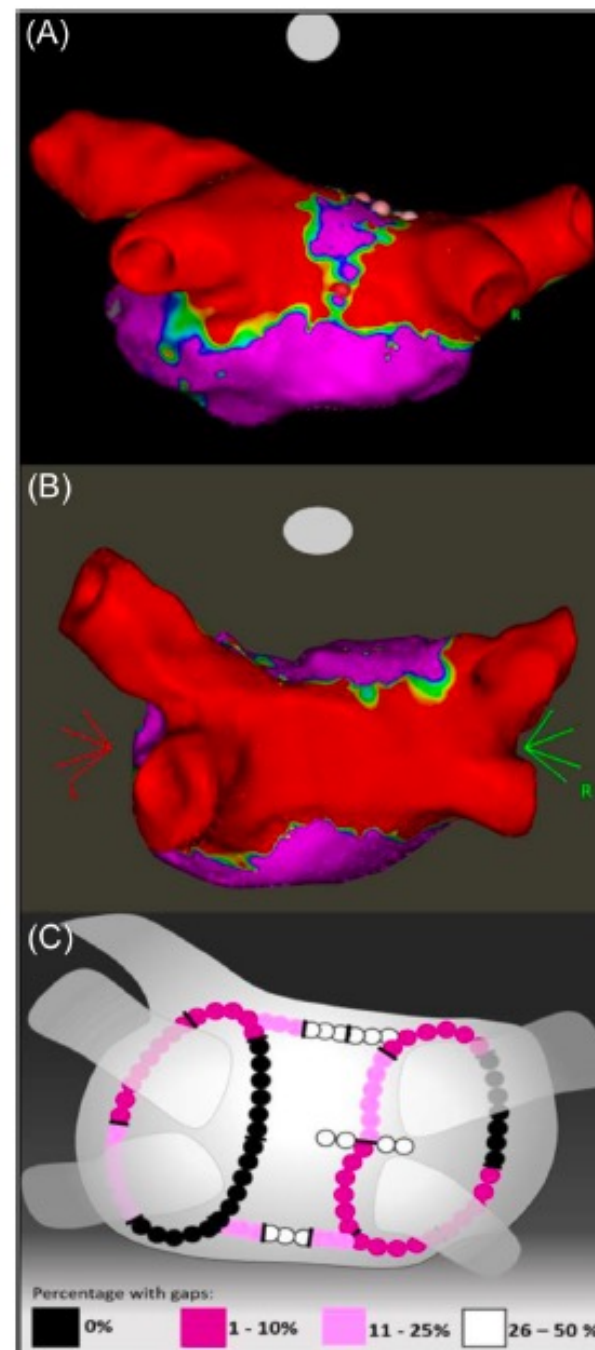


TABLE 3 Reassessment-procedure

Days from index to reassessment procedure	185 (180-197)
Total procedure time, min	99 (82-120)
Ablation time, min	5 (1-8)
Fluoro time, min	7 (6-8)
Fluoro dose, Gy × cm ²	12 (7-27)
Lesion durability	
<i>Durably isolated PVs</i>	84/99 (85)
• Left superior PV	21/24 (88)
• Left inferior PV	21/24 (88)
• Right superior PV	20/24 (83)
• Right inferior PV	19/24 (79)
• Right middle Vein	3/3 (100)
• All veins isolated (CRZ ablated)	14/24 (58)
• All veins isolated (CRZ not ablated)	9/16 (56)
<i>Durably isolated PWs</i>	11/24 (46)
• Durable roof lines	14/24 (58)
• Durable Inferior lines	15/24 (63)
• Durable CRZ	4/8 (50)
<i>Durably isolated full lesion set (PVs + PWs)</i>	7/24 (29)
Safety	
• Atrio-esophageal fistula	0/24
• Vascular access complications	1/24 ^a
• Tamponade/perforation	0/24

Note: Data presented as median (interquartile range) or n/N (%).

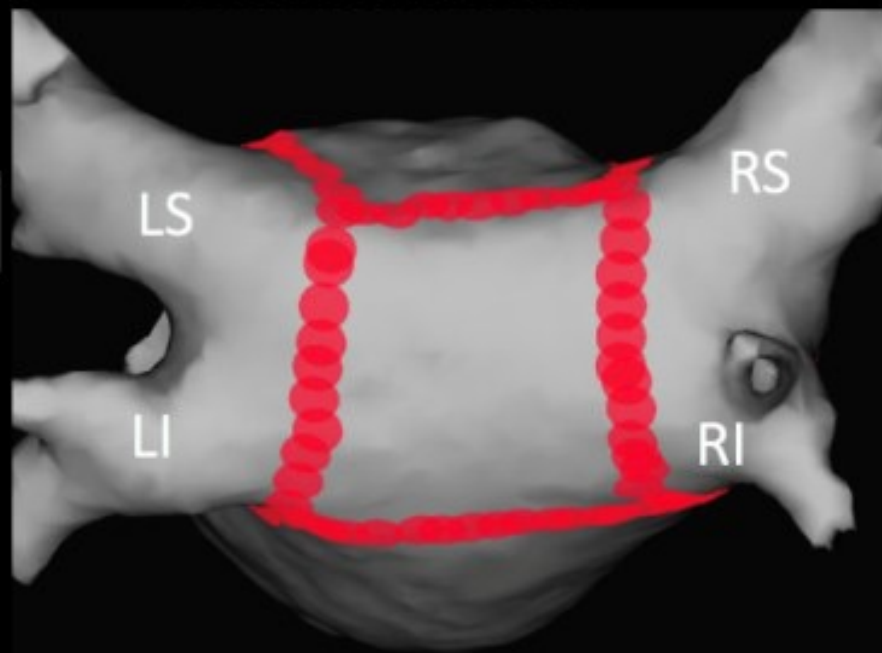
Abbreviations: PV, pulmonary vein; PW, posterior wall.



Teknik

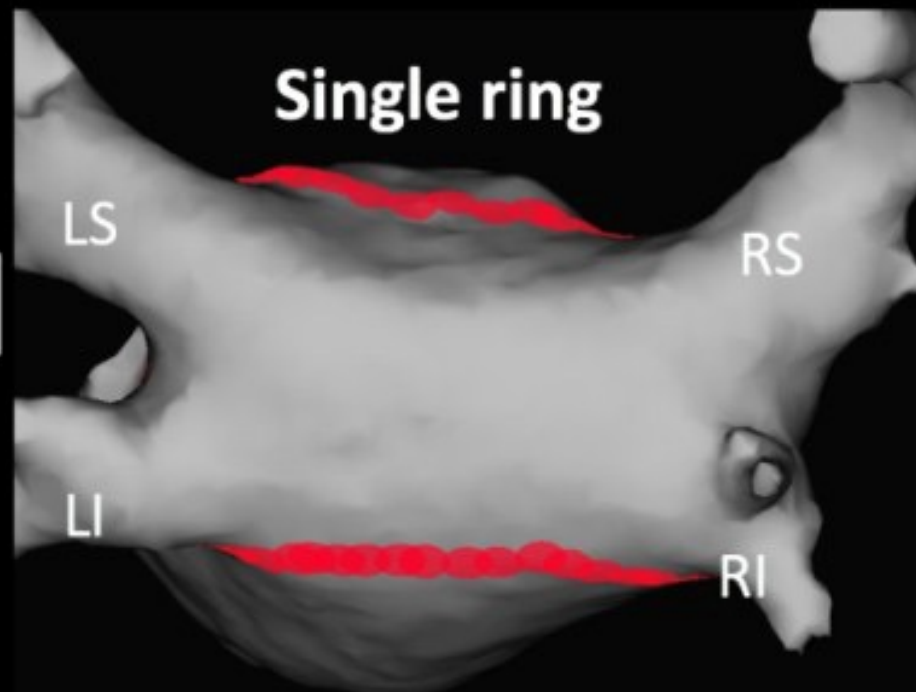
Box isolation

A



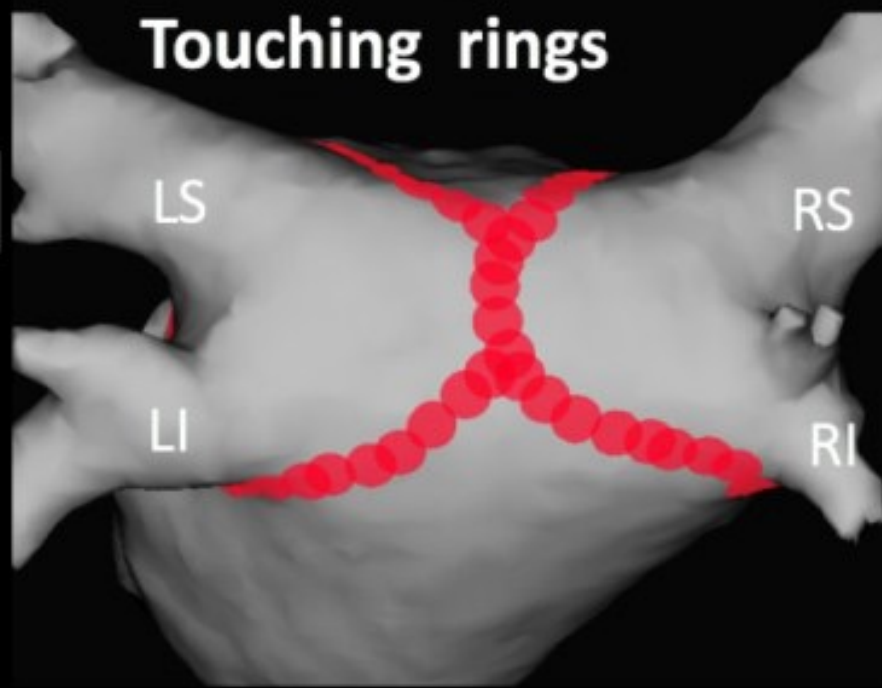
Single ring

B



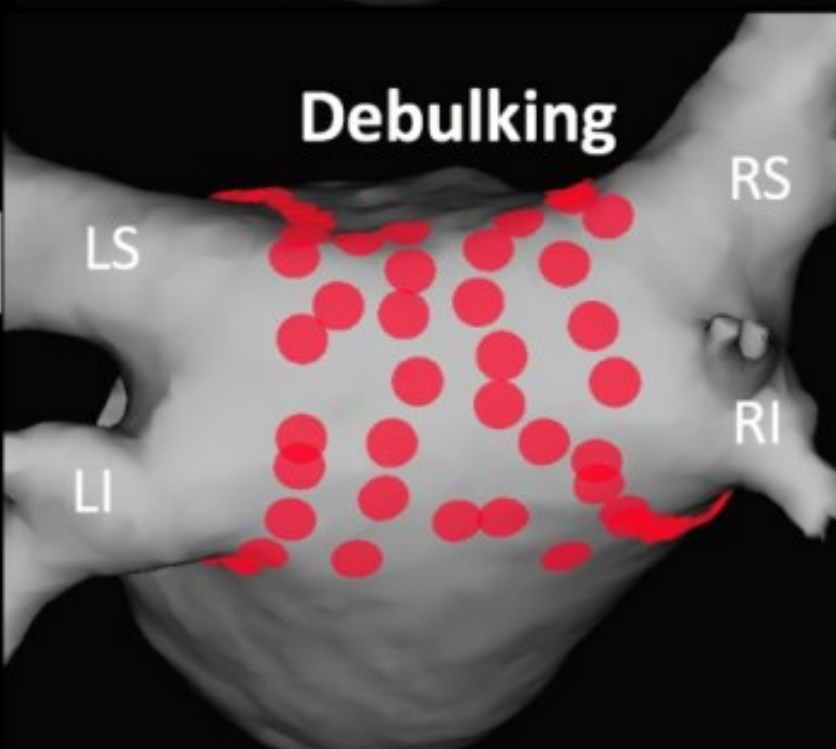
Touching rings

C



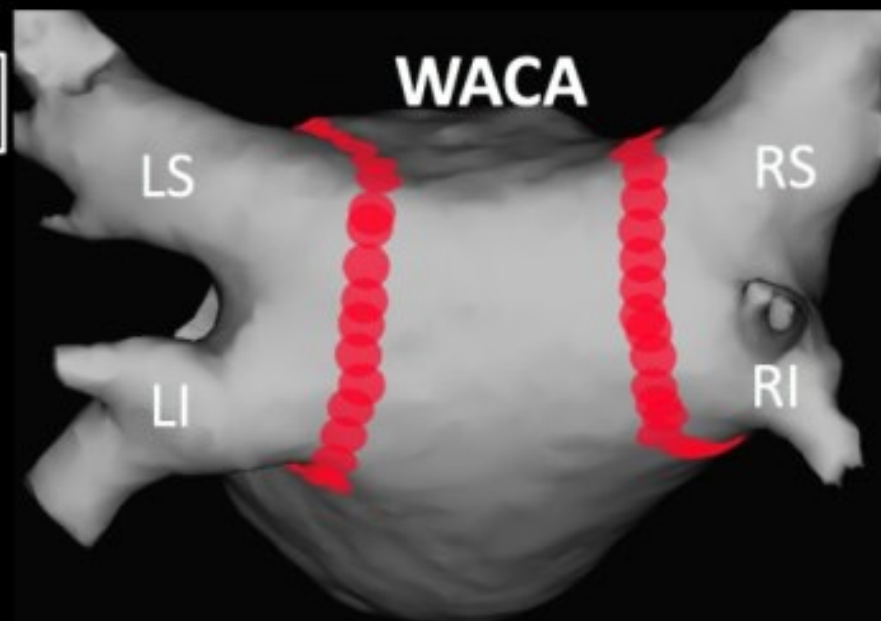
Debulking

D

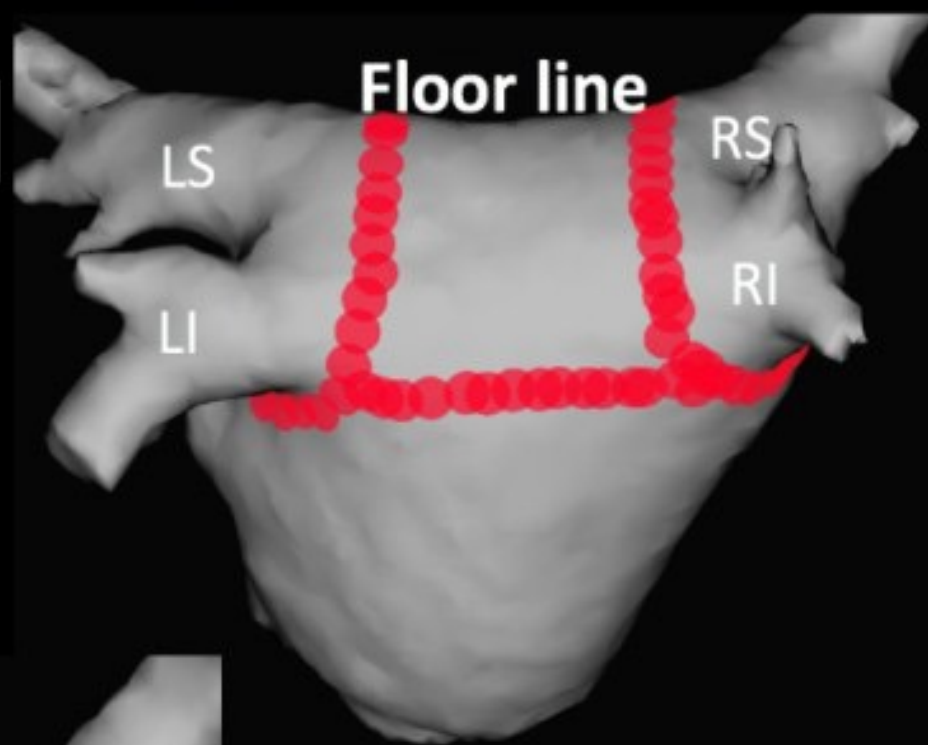


Sequential approach to posterior wall box isolation

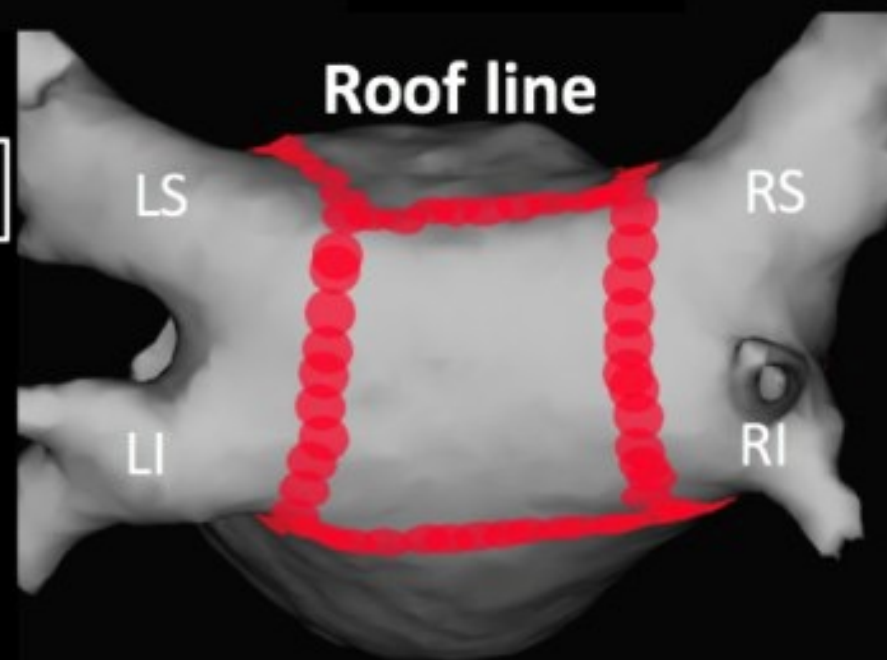
Step 1

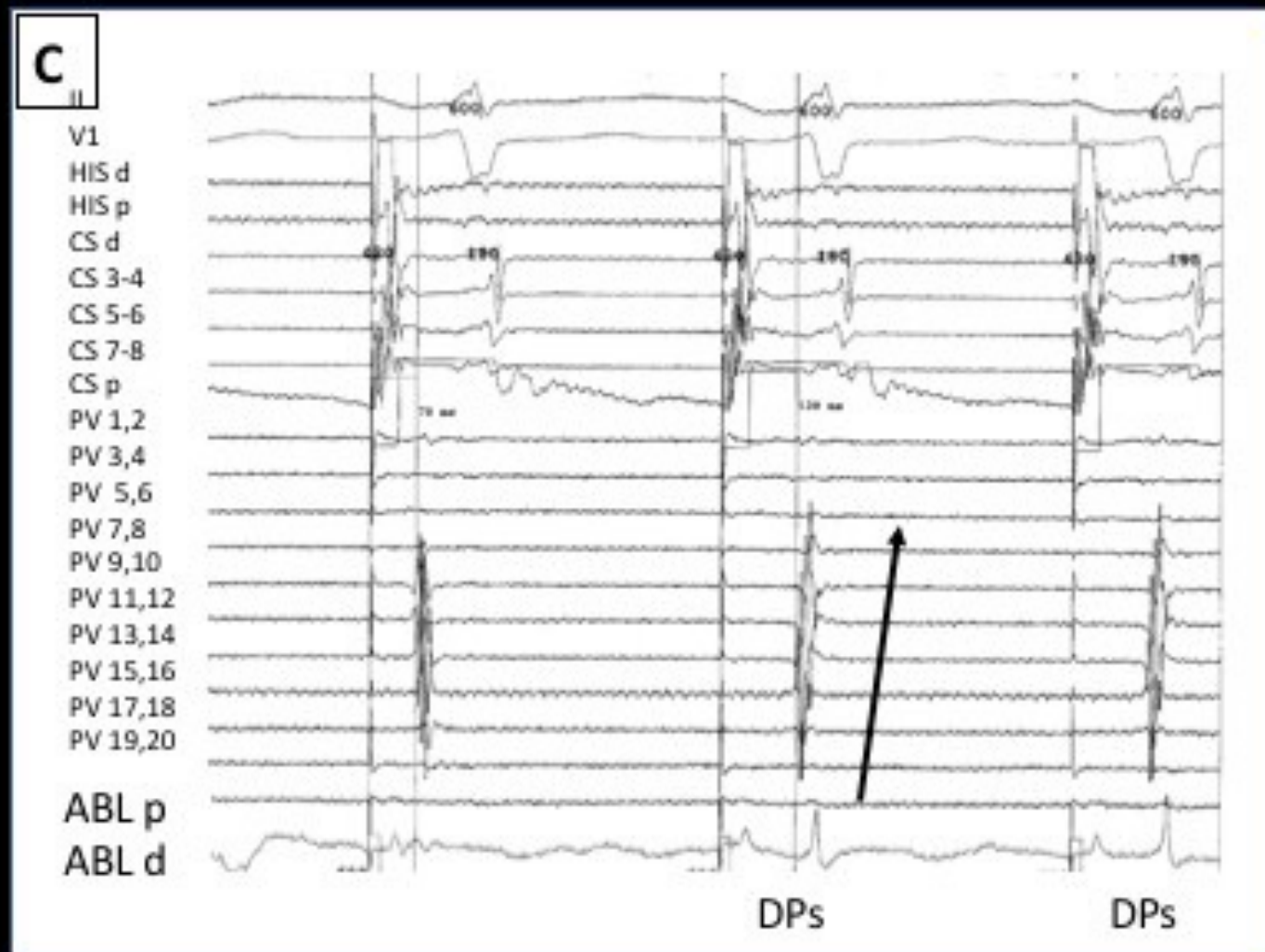
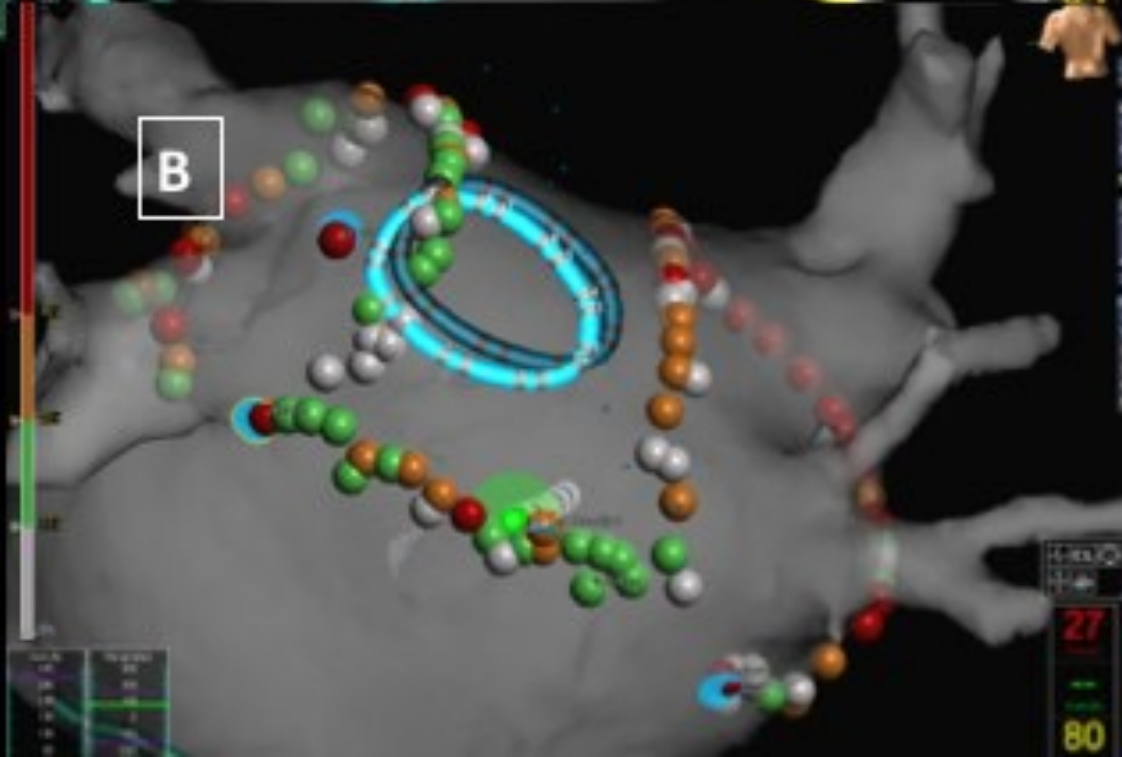
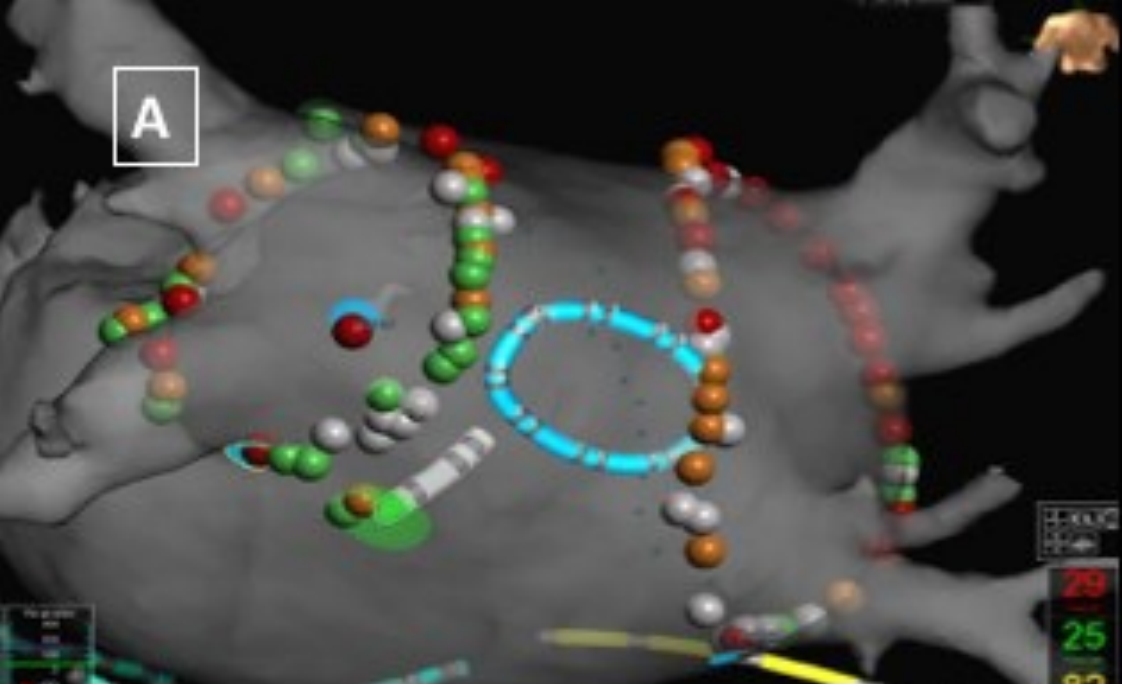


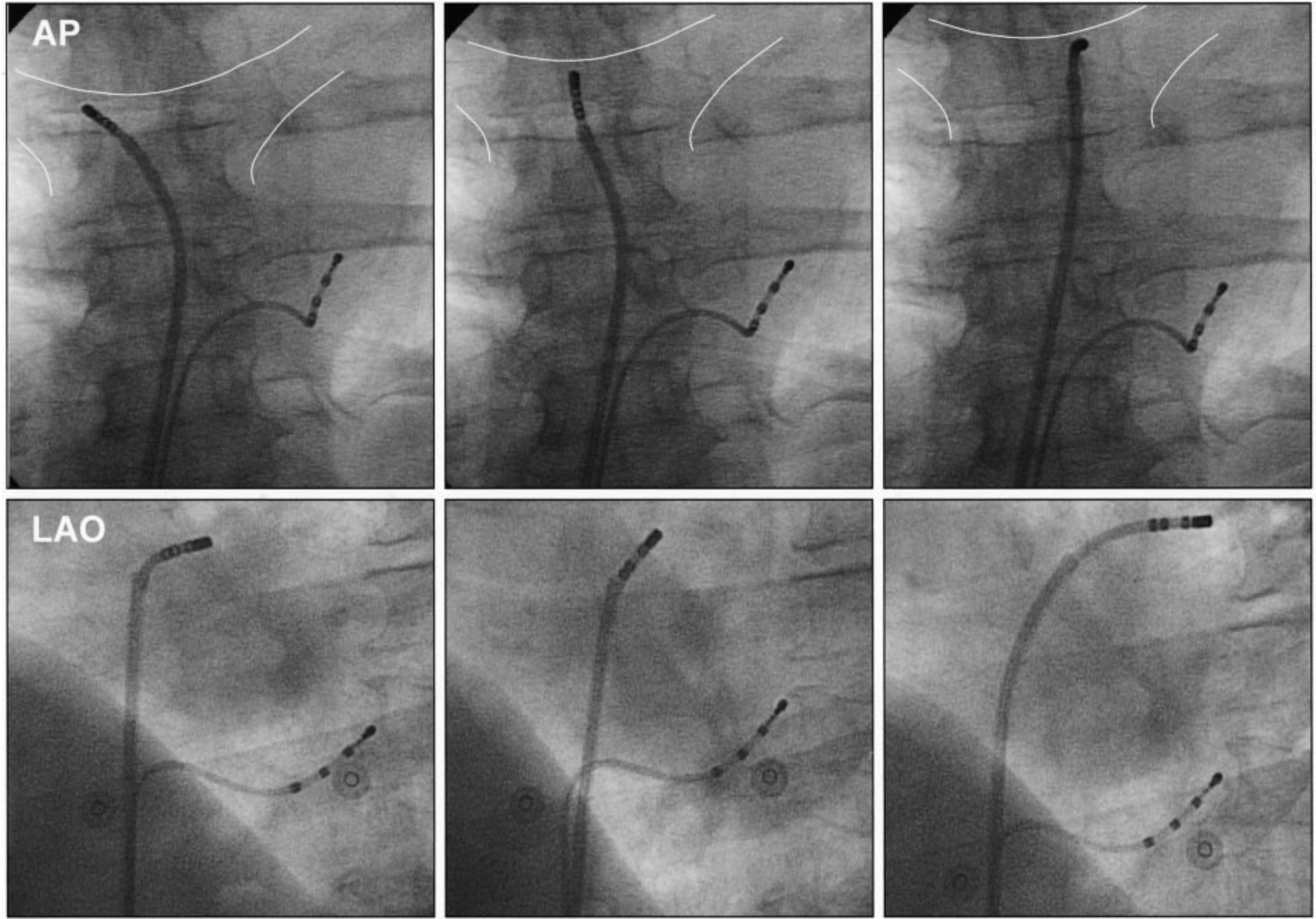
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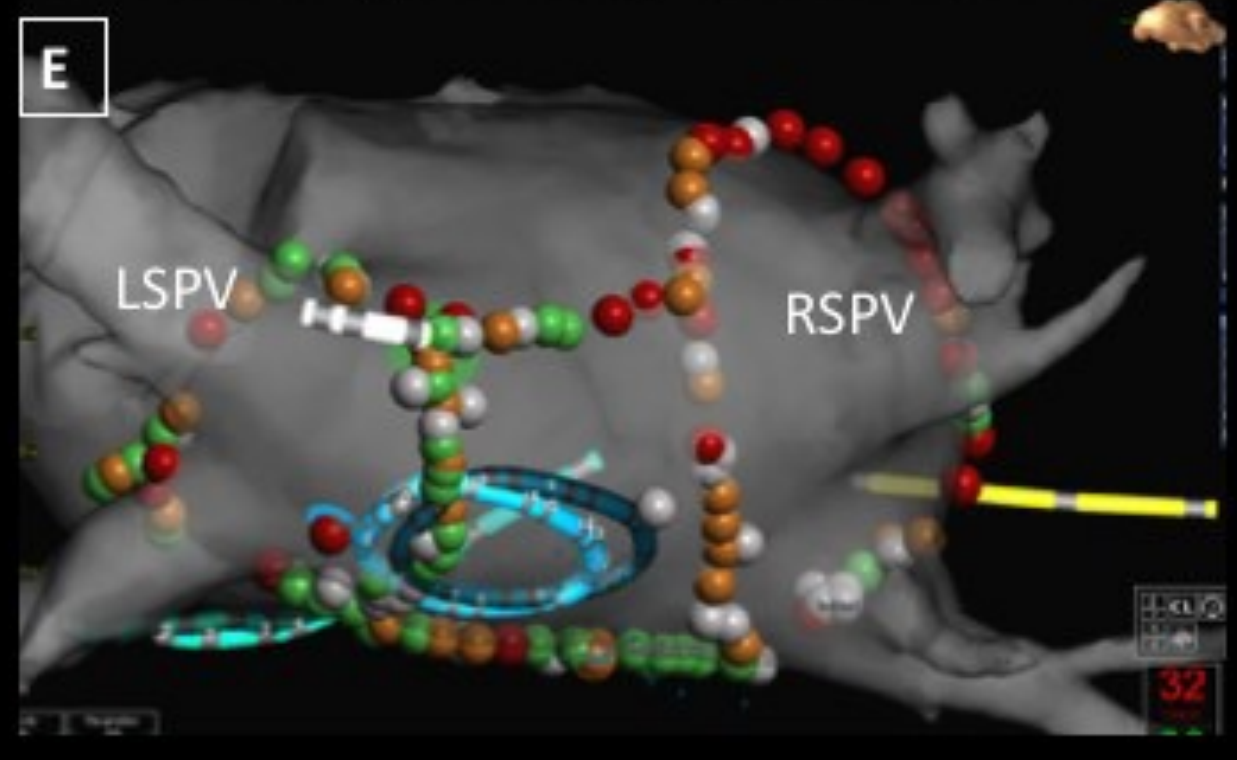
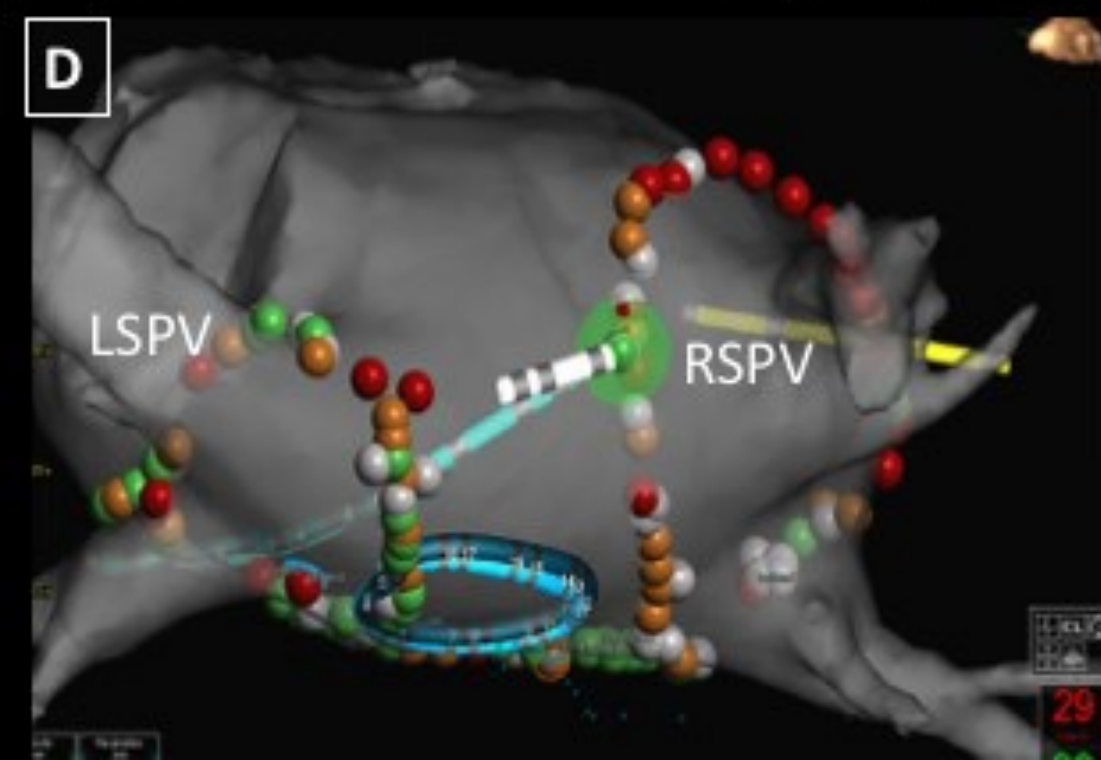
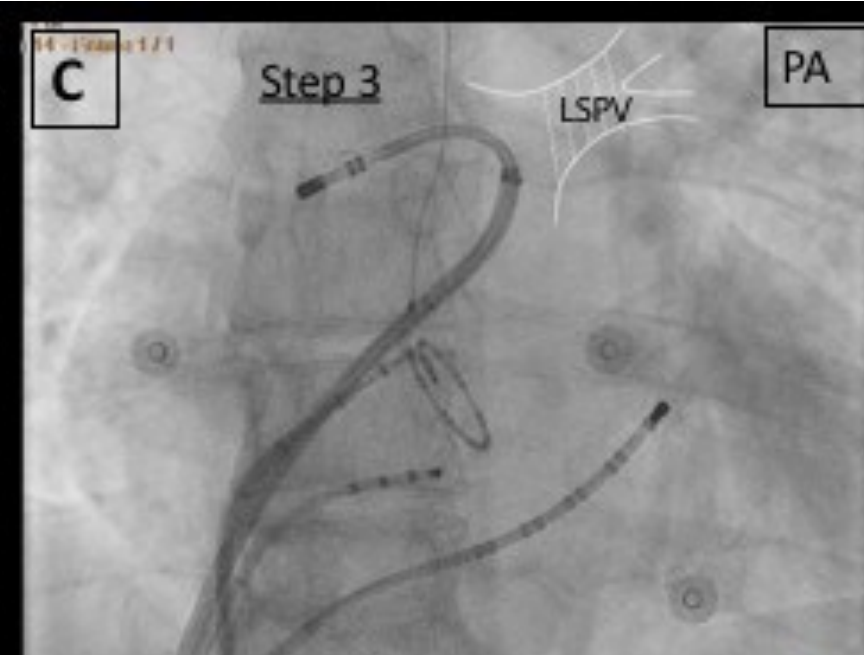
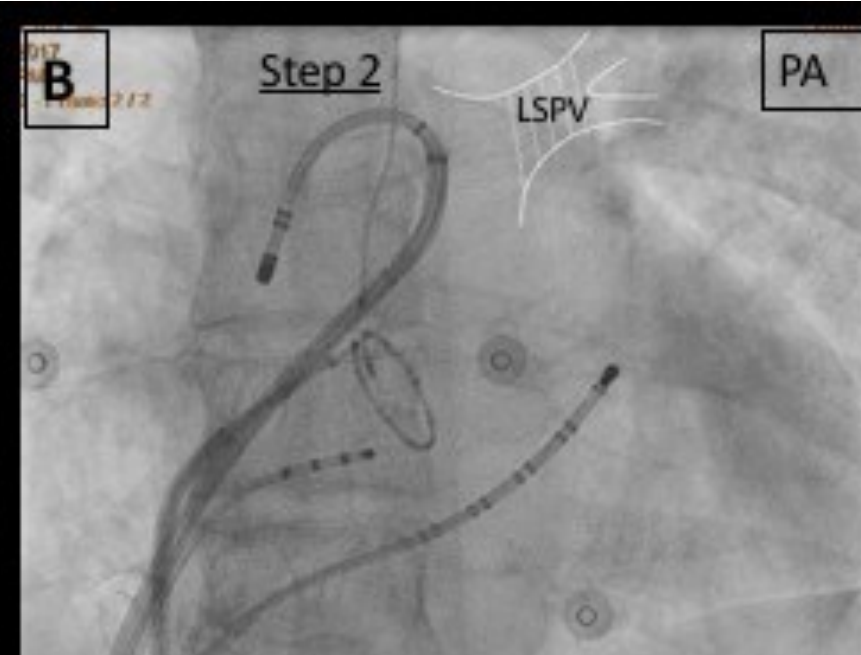
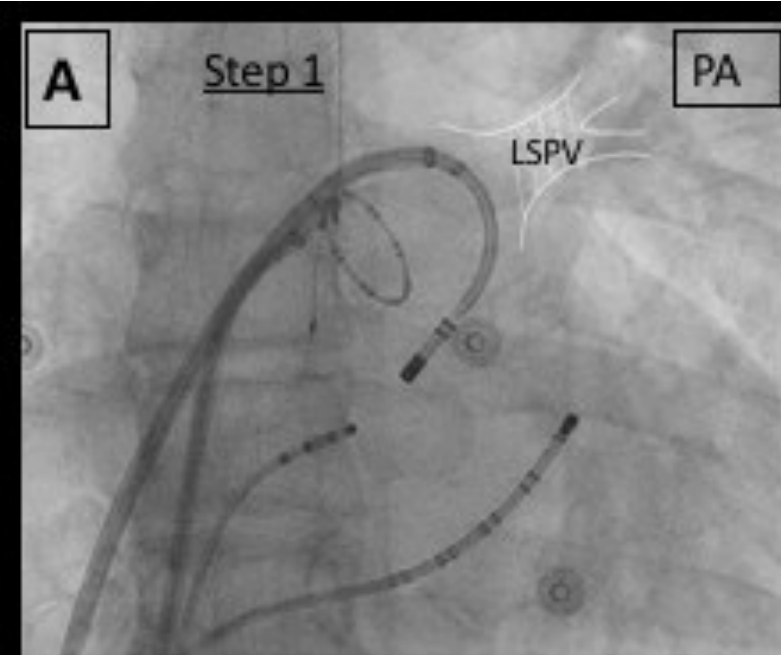


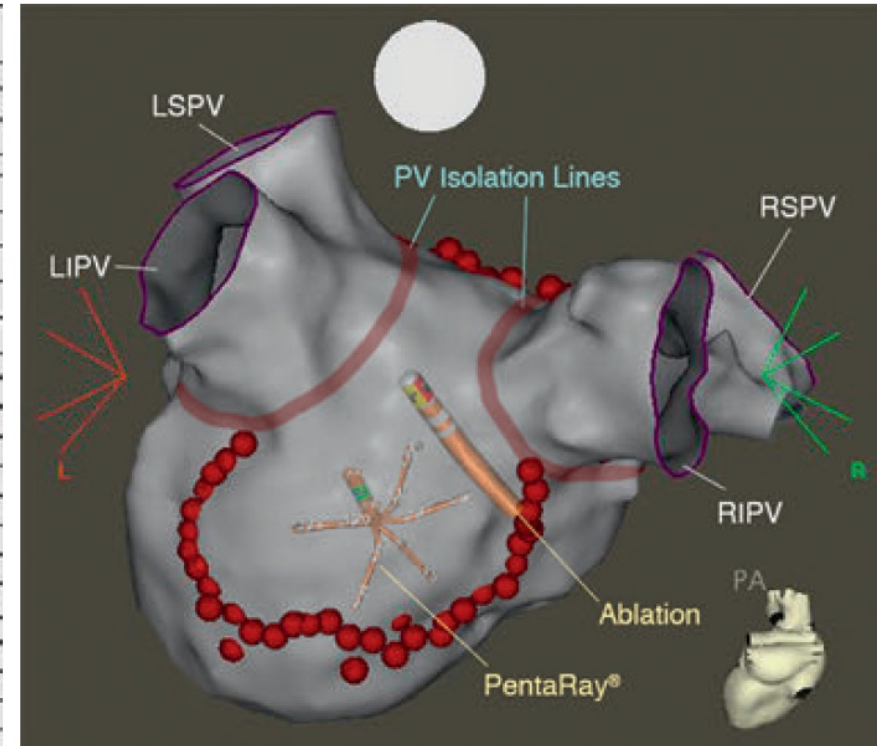
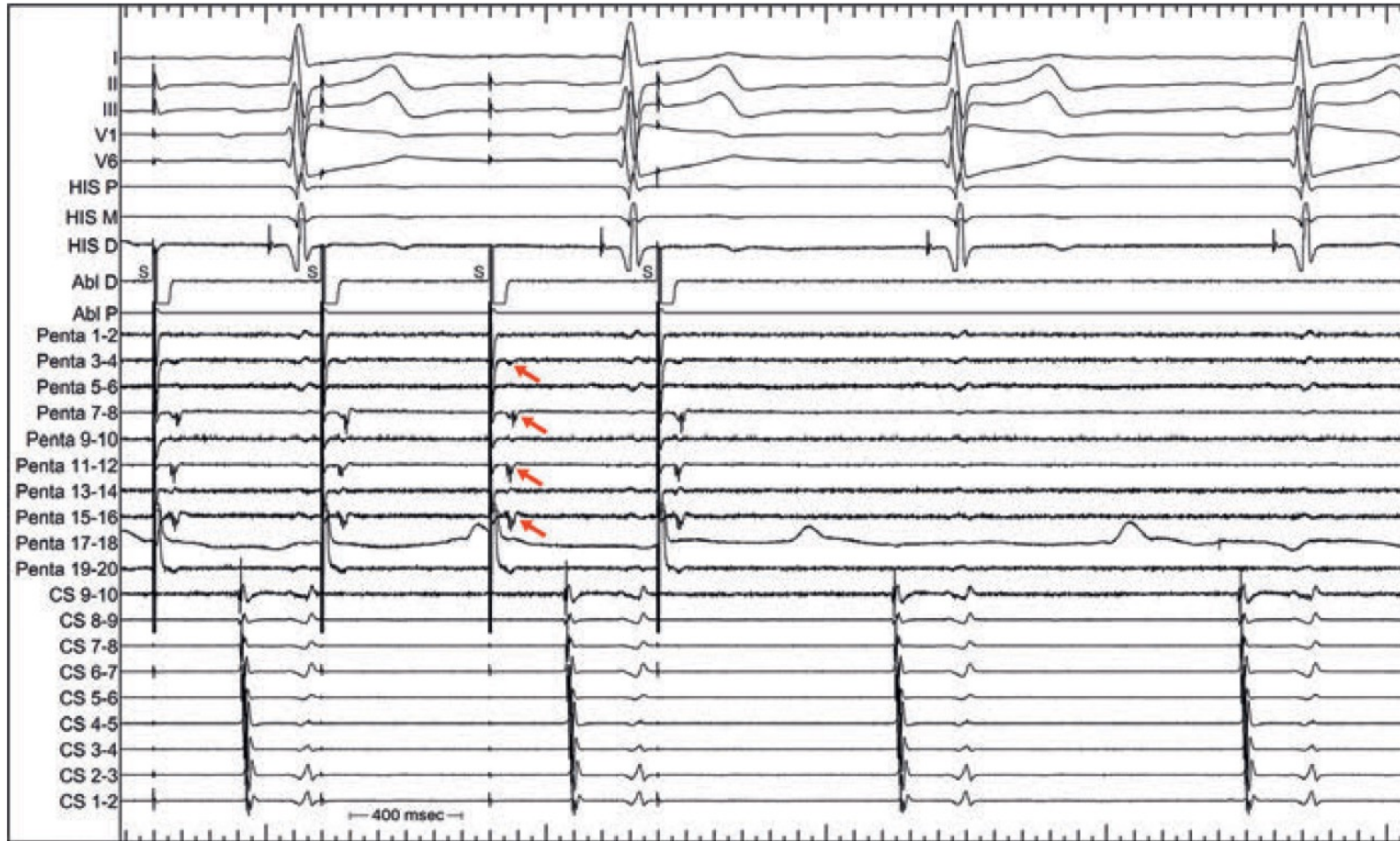
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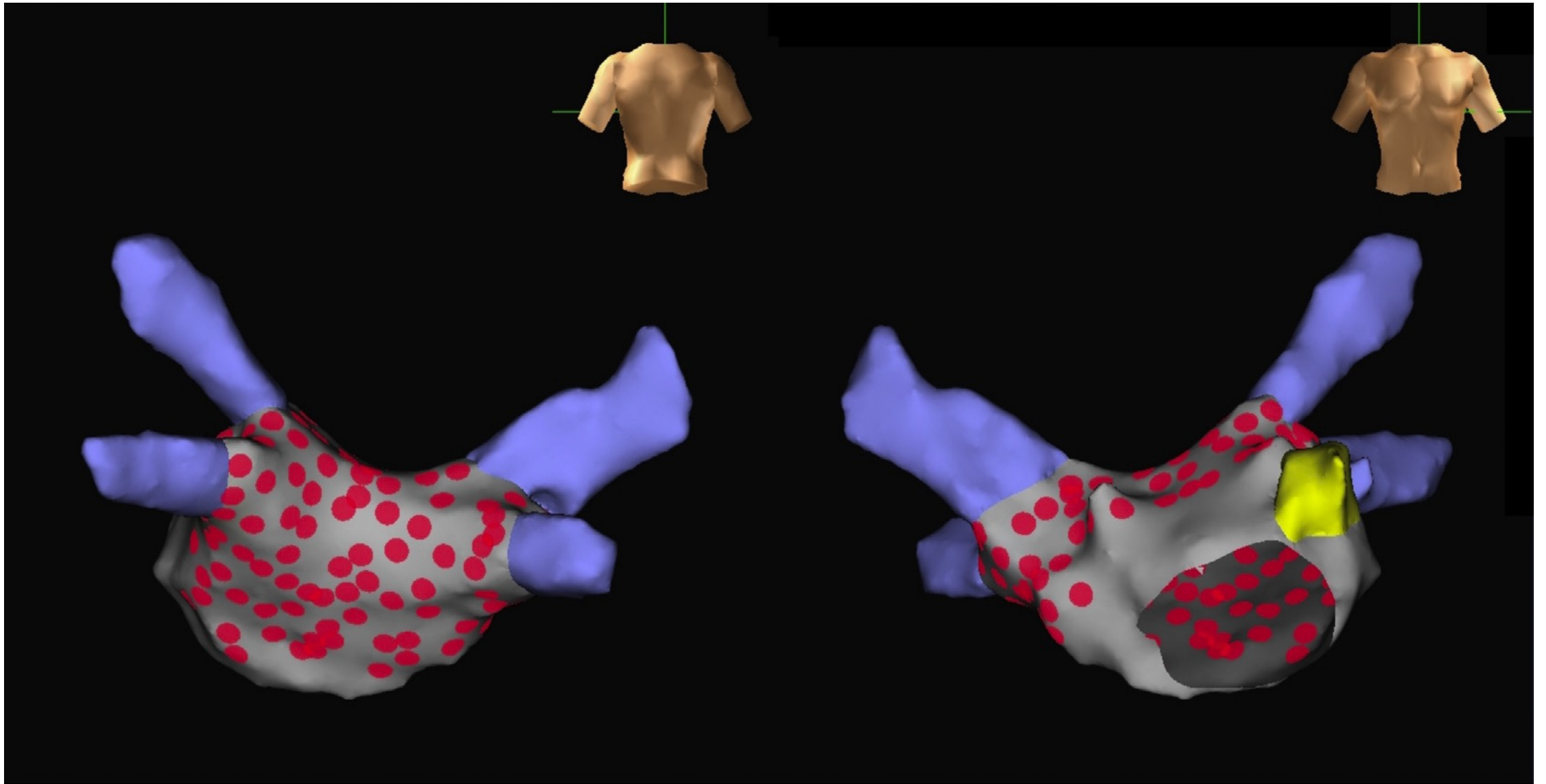






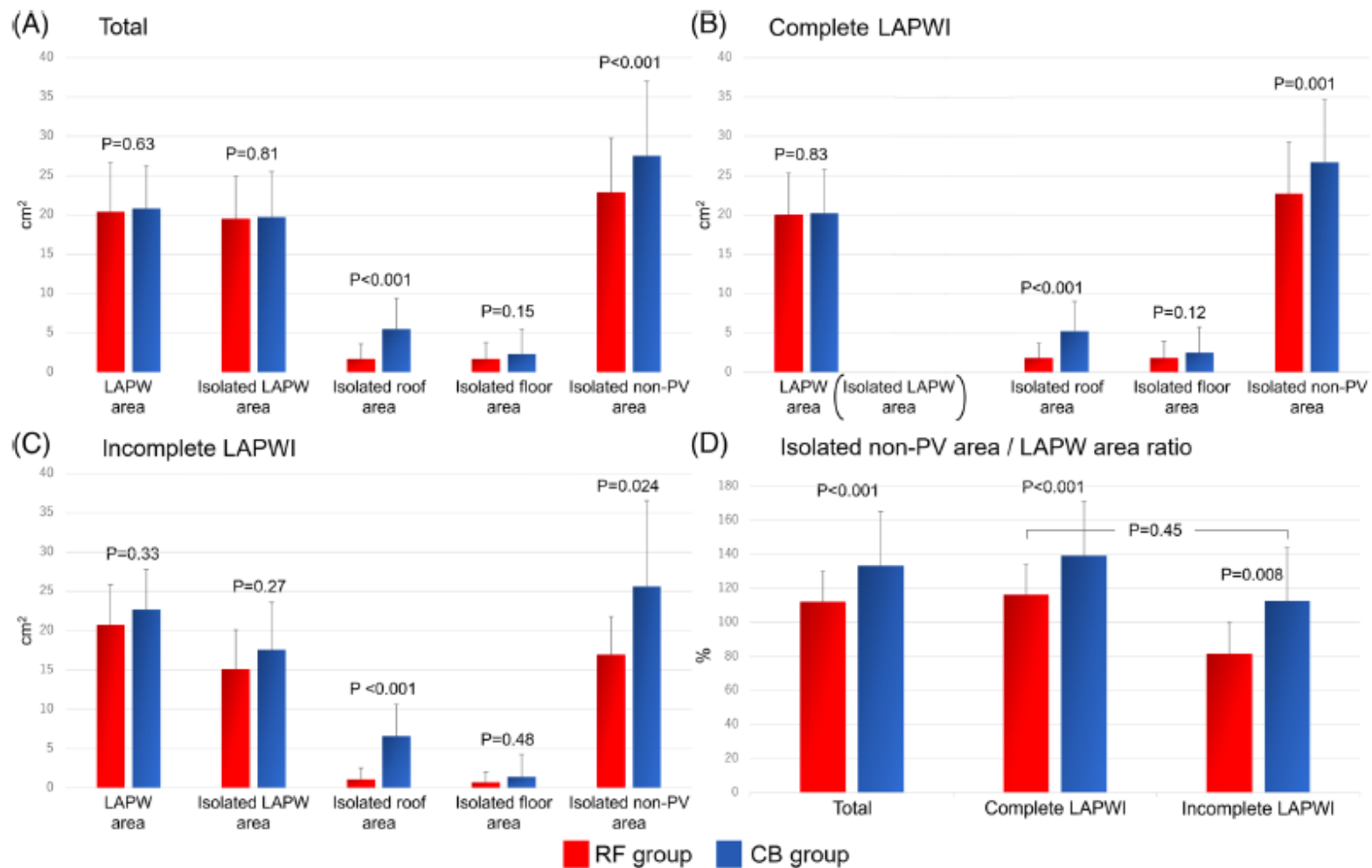


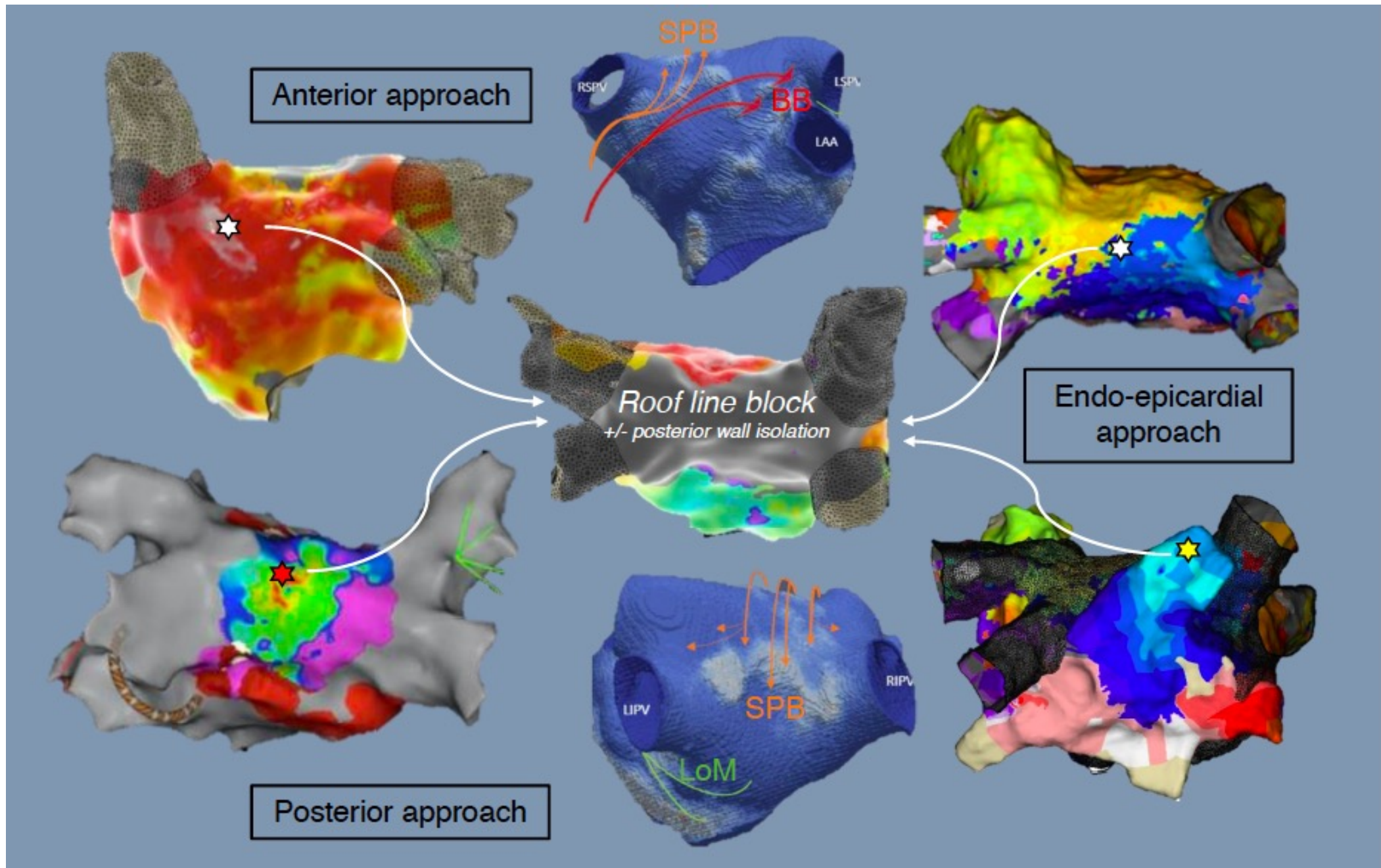


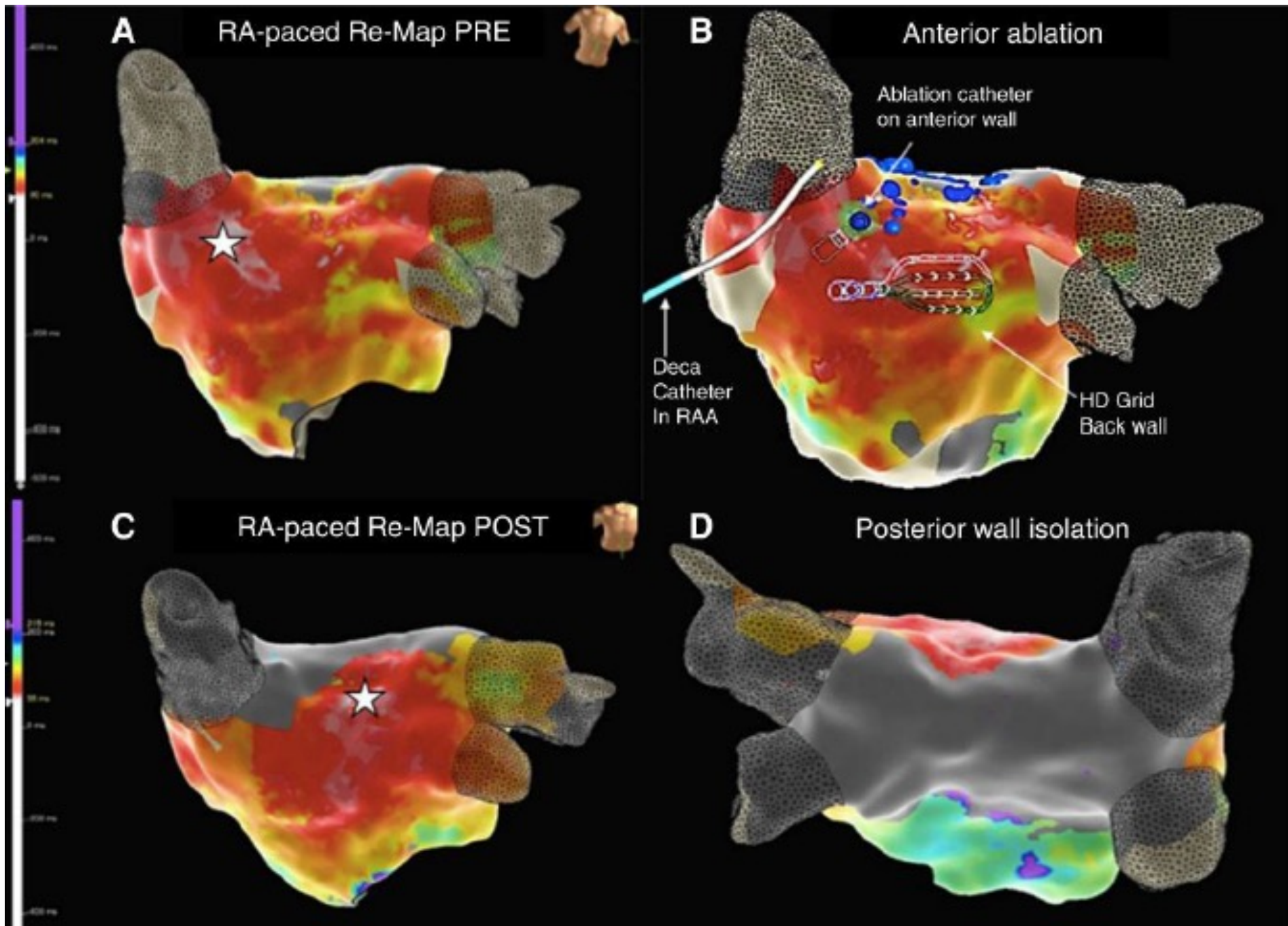


Aryana A, et al. J Am Coll Cardiol EP. 2023;9(5):628-637.

Posterior duvar izolasyonunda RF krş Kriyoablasyon







64 y, kadın, CHADs-VASc:2, LV EF %65, LA: 42 mm,
PAF nedeniyle kriyoablasyon

1. ayında amiodarona rağmen sık semptomatik PAF atakları sürüyor

