Angioplastia Transluminal Coronaria Compleja por Acceso Radial

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of MEDICINE

Disclosure Statement of Financial Interest

Within the past 12 months, I or my spouse/partner have had a financial interest/arrangement or affiliation with the organization(s) listed below.

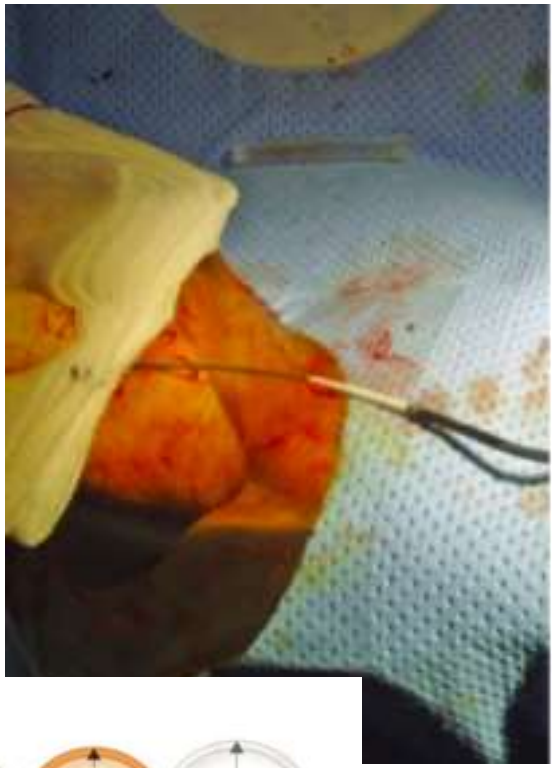
Affiliation/Financial Relationship	***Company***
Grant/Research Support	Regado Biosciences / Astra Zeneca
Consulting Fees/Honoraria	Abiomed / Terumo Medical / Accumed / Medtronic / Edwards Lifesciences / The Medicines Company
Major Stock Shareholder/Equity	Accumed
Royalty Income	None
Ownership/Founder	None
Intellectual Property Rights	None
Other Financial Benefit	None

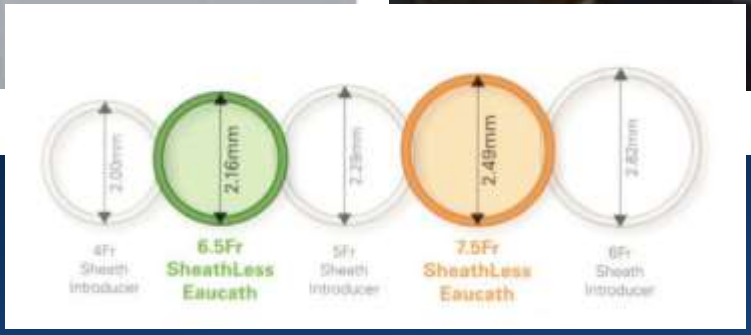
Complex PCI

- Working with larger guiding catheters
- Bifurcations
- Left main interventions
- Rotational Atherectomy
- CTO
- Shock - STEMI

New Guiding Catheter Technologies

Hydrophylic Sheathless Catheters
- 7.5 Fr Catheter: OD < 6 Fr Sheath
- 6.5 Fr Catheter: OD < 5 Fr Sheath



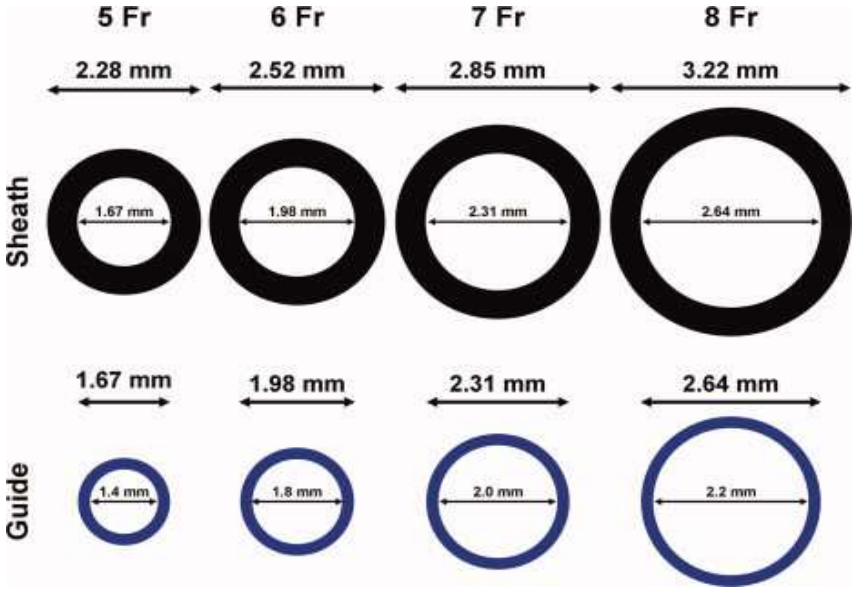


Mamas MA et al, CCI 2008;72:357–364

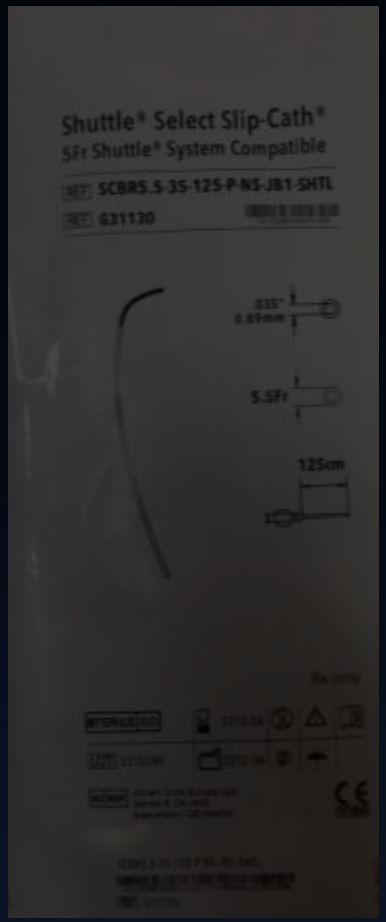
If you don’t have these new catheters…

Sheathless Technique with Regular Catheters

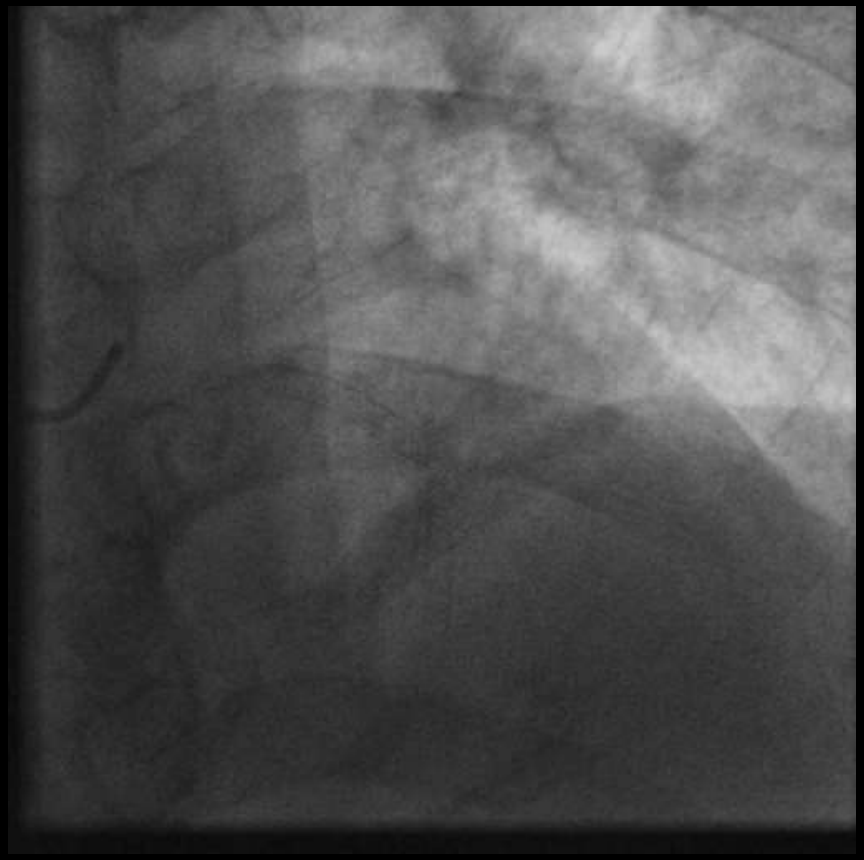
A 5-Fr diagnostic catheter inserted into and through a 7-Fr guiding catheter and over a 0.035 inch standard J-tip

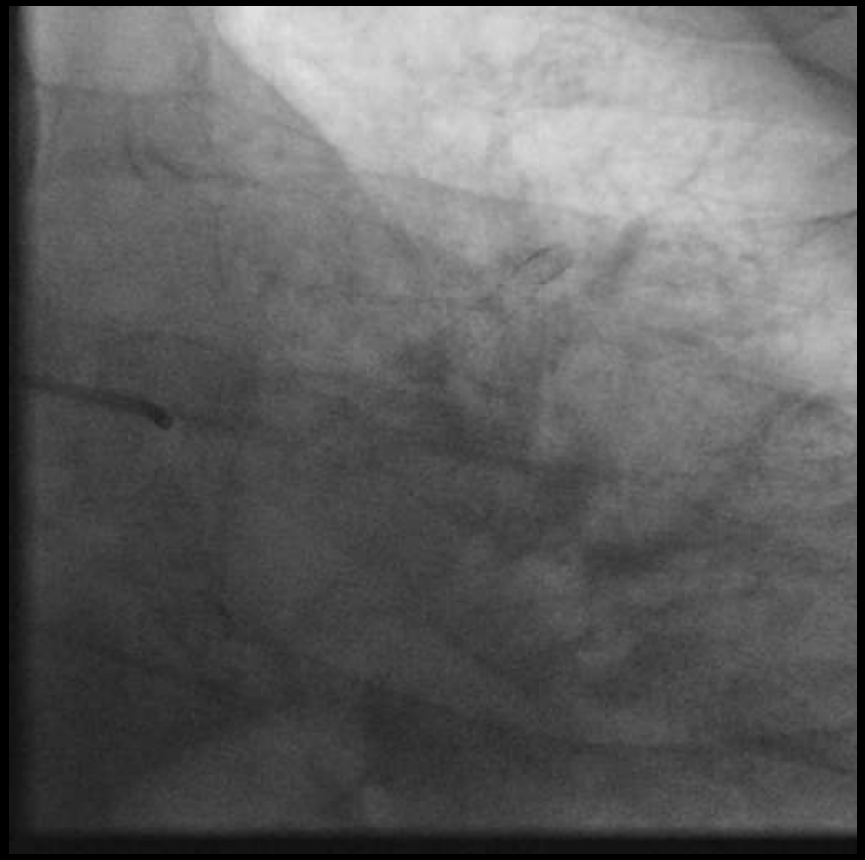


From AM, Gulati R, et al. CCI 2010; 76:911–916

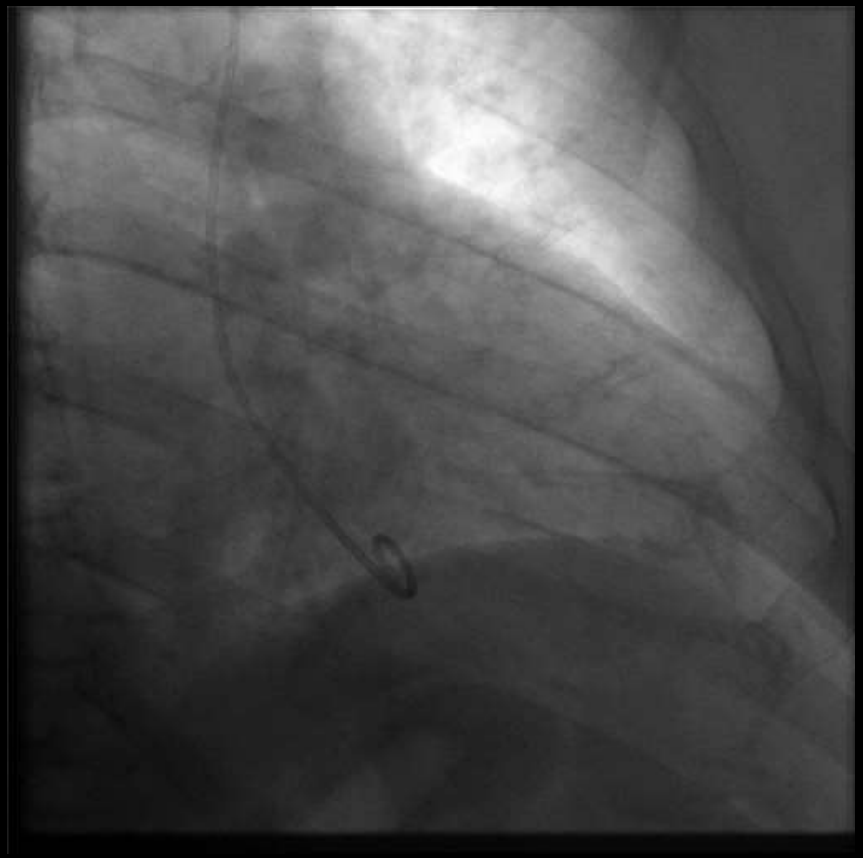

Shuttle® Select Slip-Cath®
5Fr Shuttle® System Compatible
SCBRS.5-35-125-P-NS-JB1-SHTL
G31130
.035"
0.89mm
5.5Fr
125cm

Coronary Angiography





Left Ventricular Function

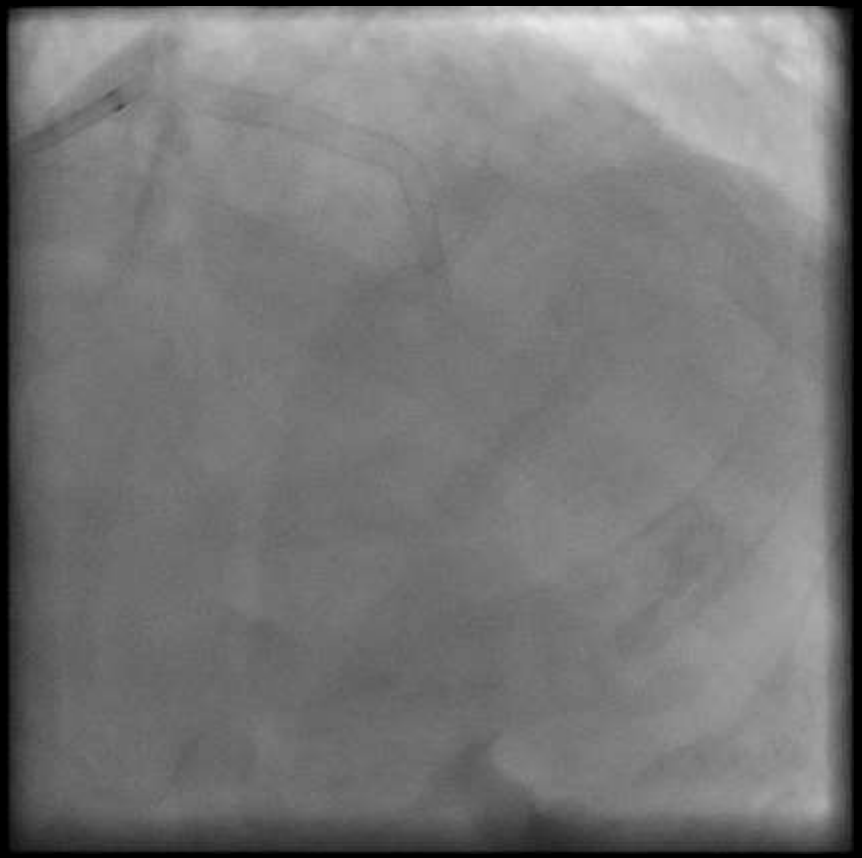


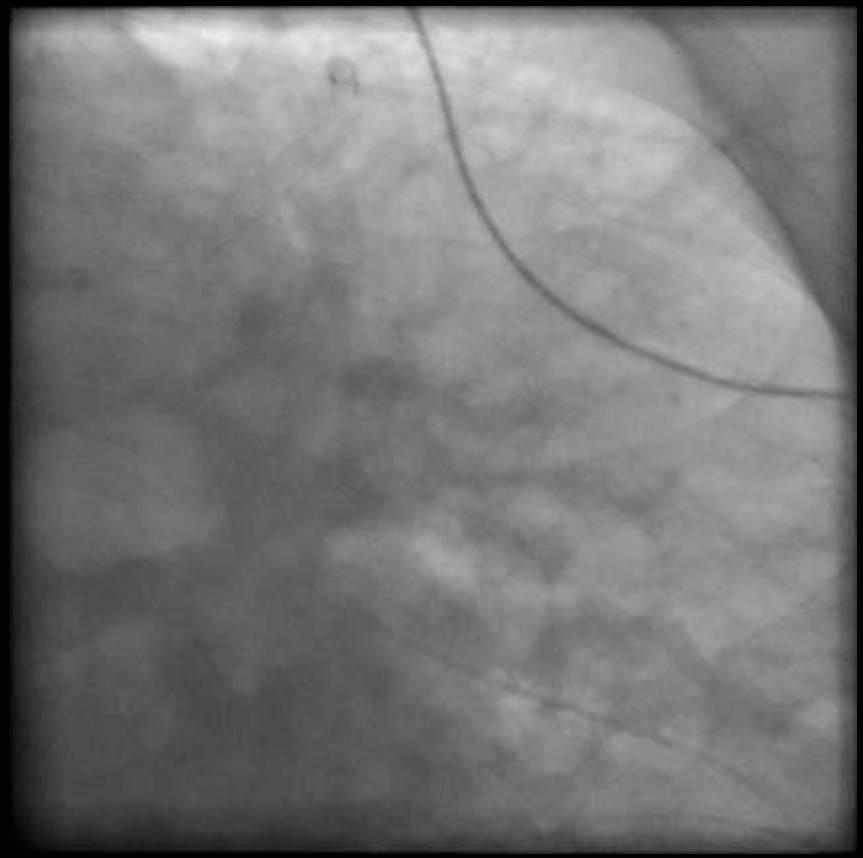
Coronary Cannulation

Kissing balloon inflation

4.0x30 mm RESOLUTE DES
Postdilated with 4.0x27 mm NC balloon

Final Angiography





Catheterization and Cardiovascular Interventions 63:412–416 (2004)

Balloon Crush: Treatment of Bifurcation Lesions Using the Crush Stenting Technique as Adapted for Transradial Approach of Percutaneous Coronary Intervention

Pitt O. Lim, MD, and Vladimír Džavík,* MD

JIC JOURNAL OF INVASIVE CARDIOLOGY

Transradial Intervention via Large-Bore Guide Catheters: A Study of Coronary Bifurcation Disease Treatment Using the Crush Technique

Author(s):
Paul D. Williams, MD[1], Jonas Eichhöfer, MD[2], Mamas A. Mamas, MD[3], Samer Arnous, MD[3], Farzin Fath-Ordoubadi, MD[3], Douglas Fraser, MD[3]

J Invasive Cardiol 2013;25:455-459

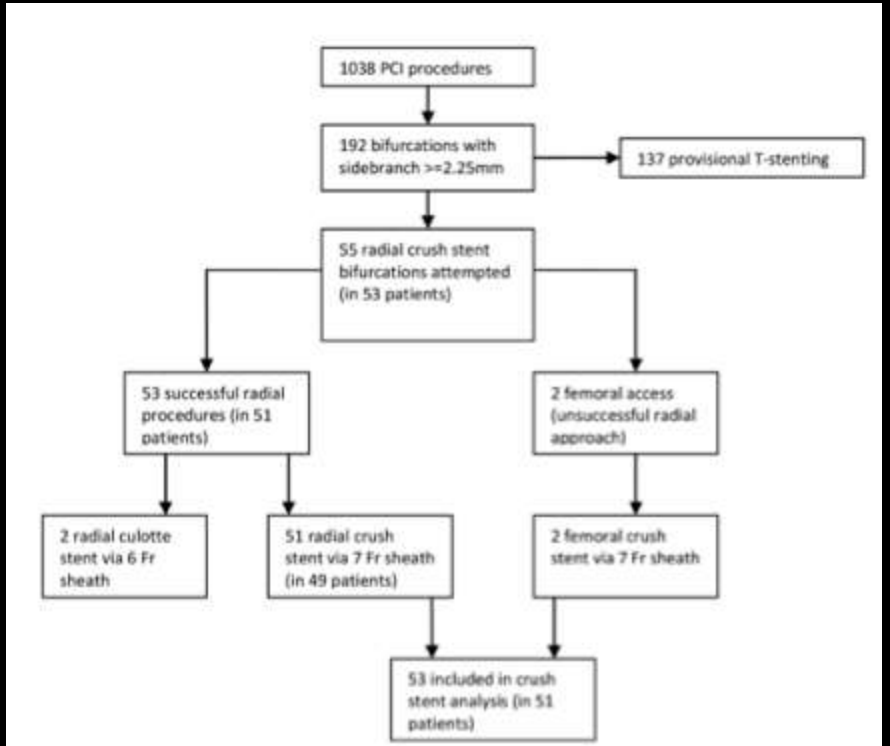
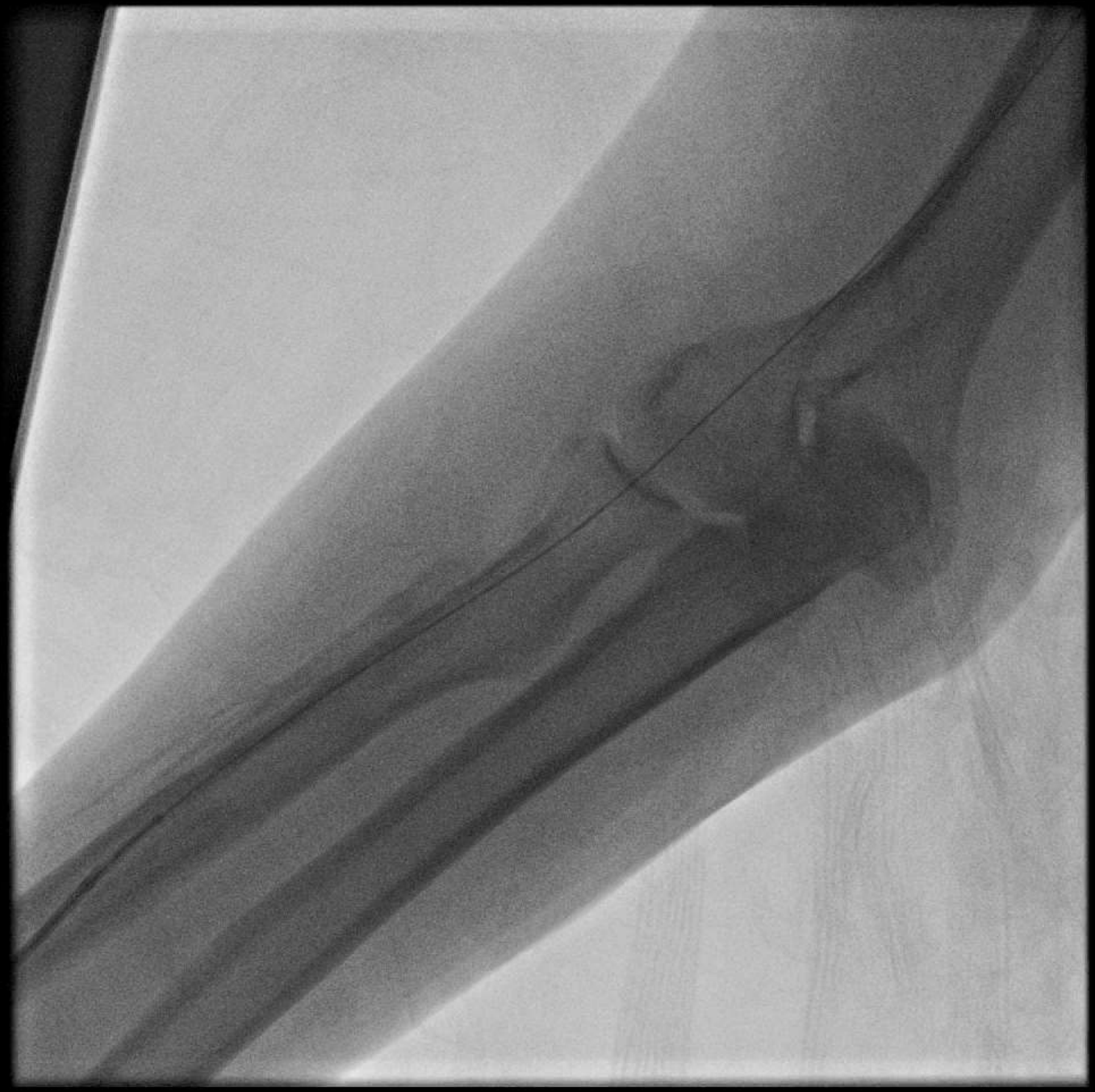
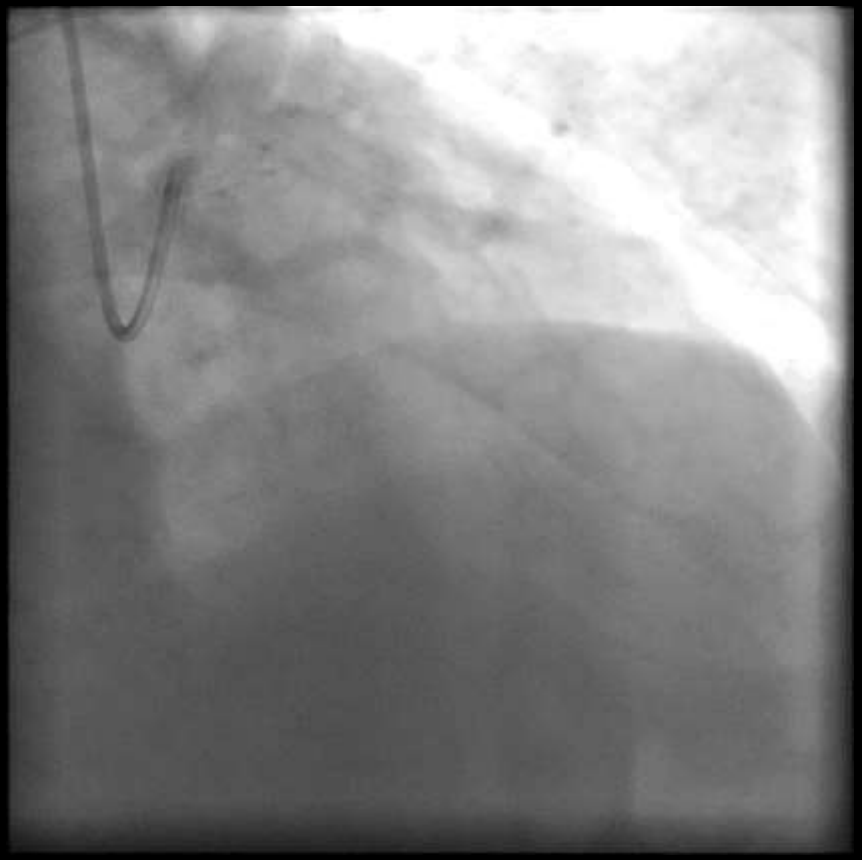
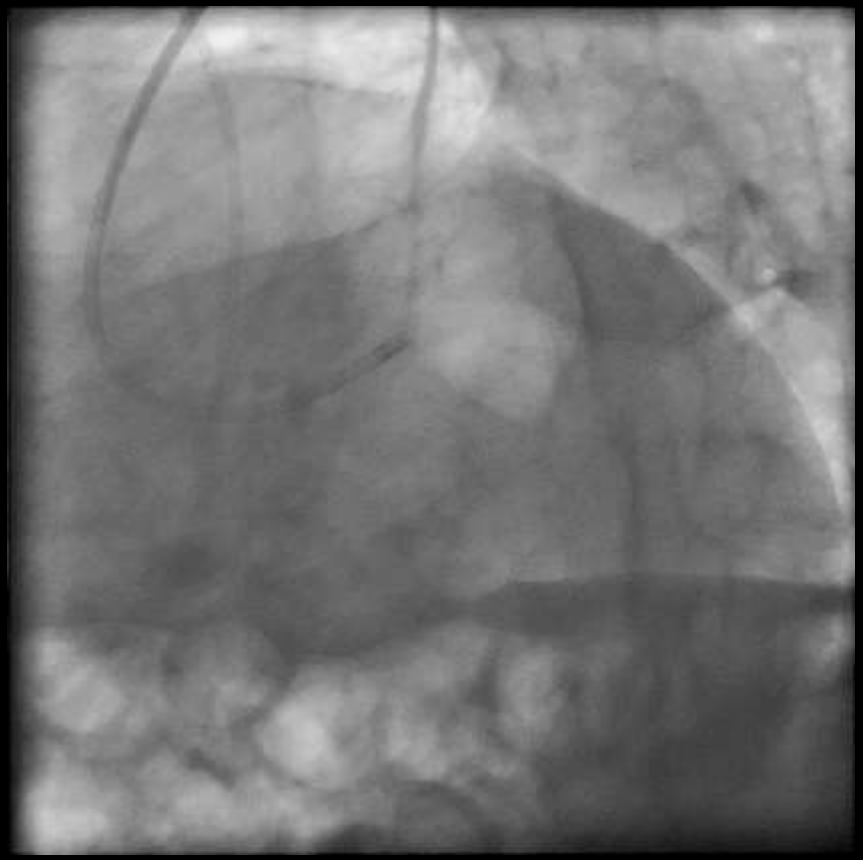
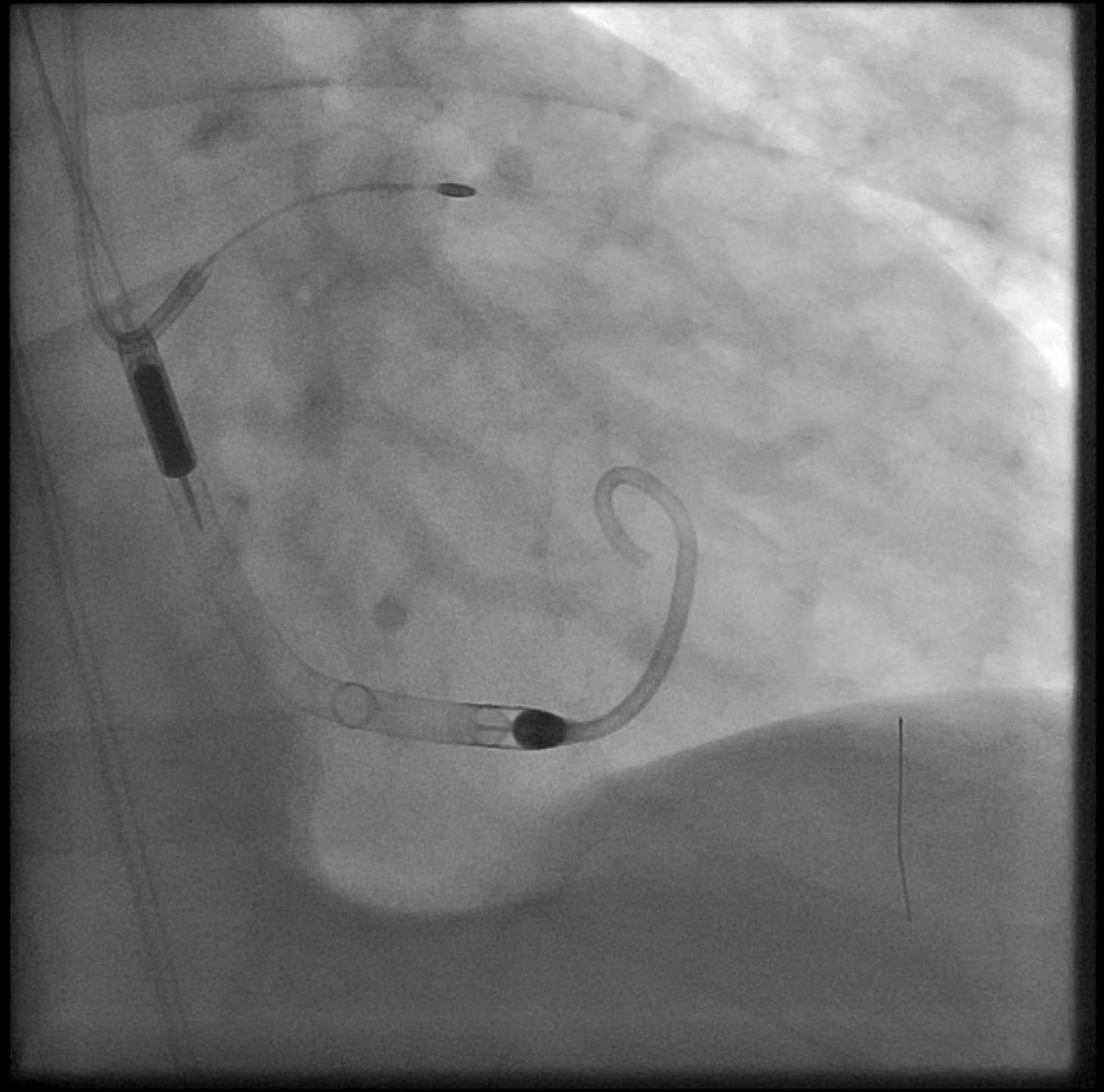


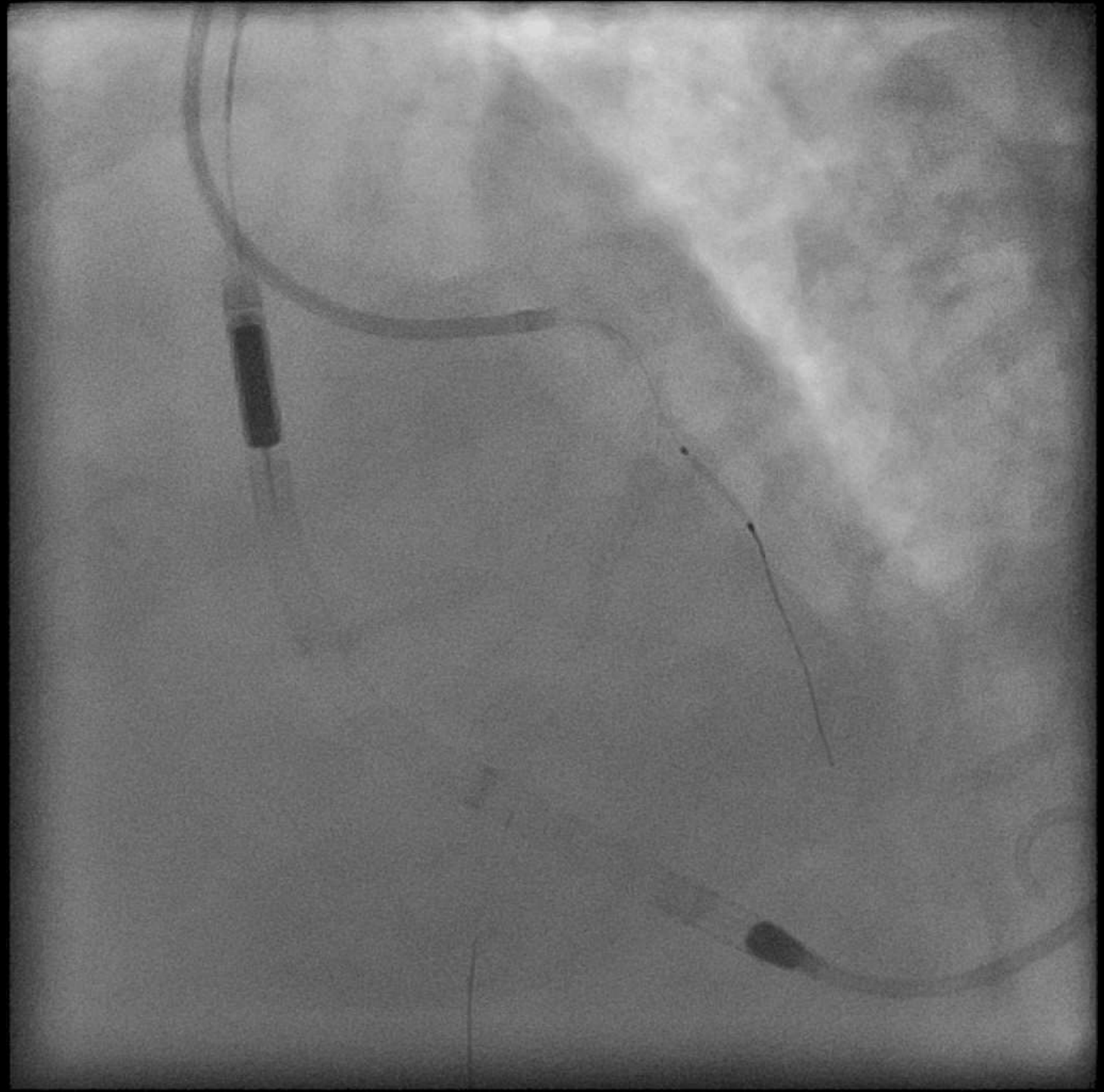
Figure 1. *Diagram of patient flow.*

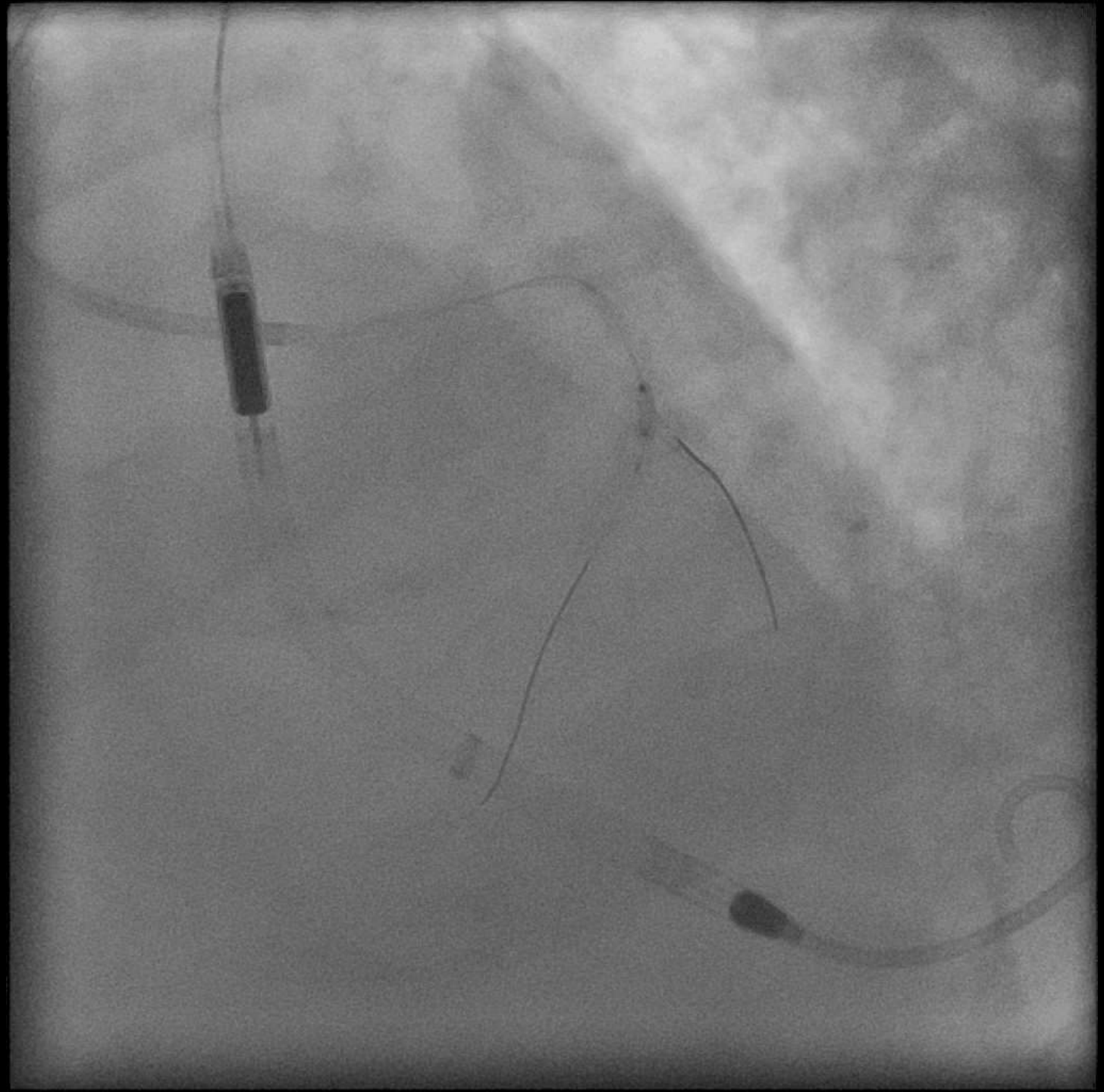


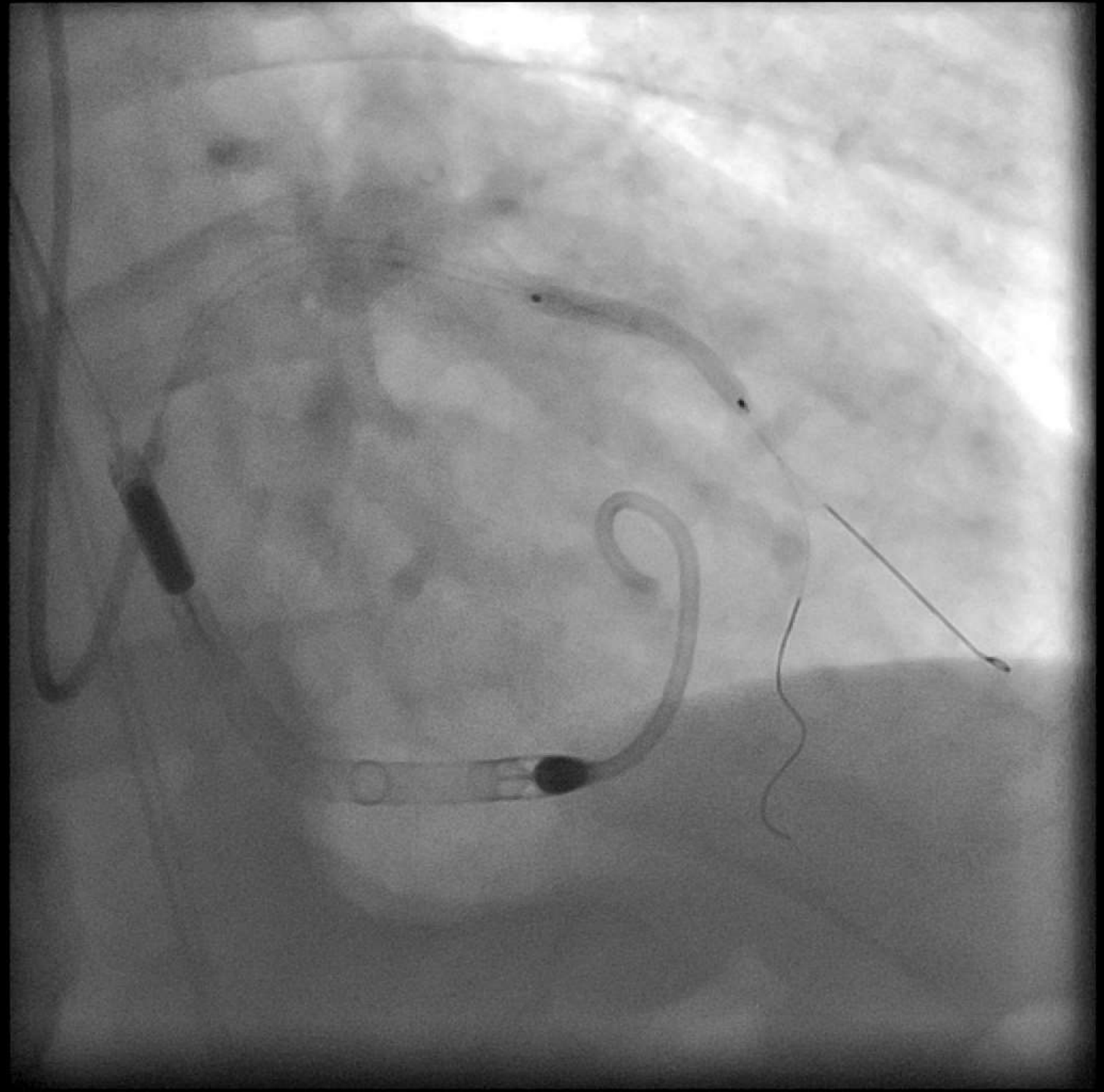


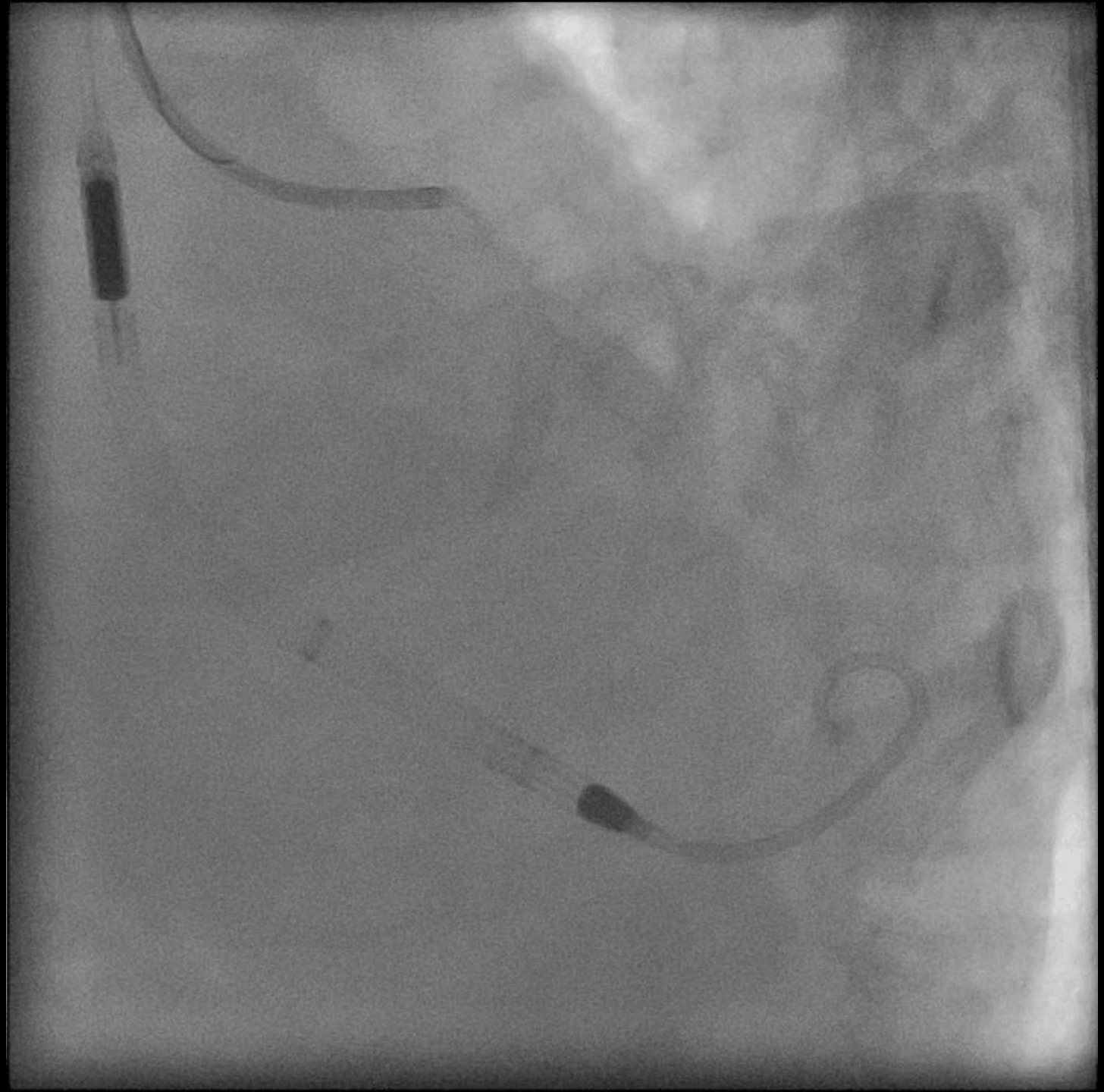


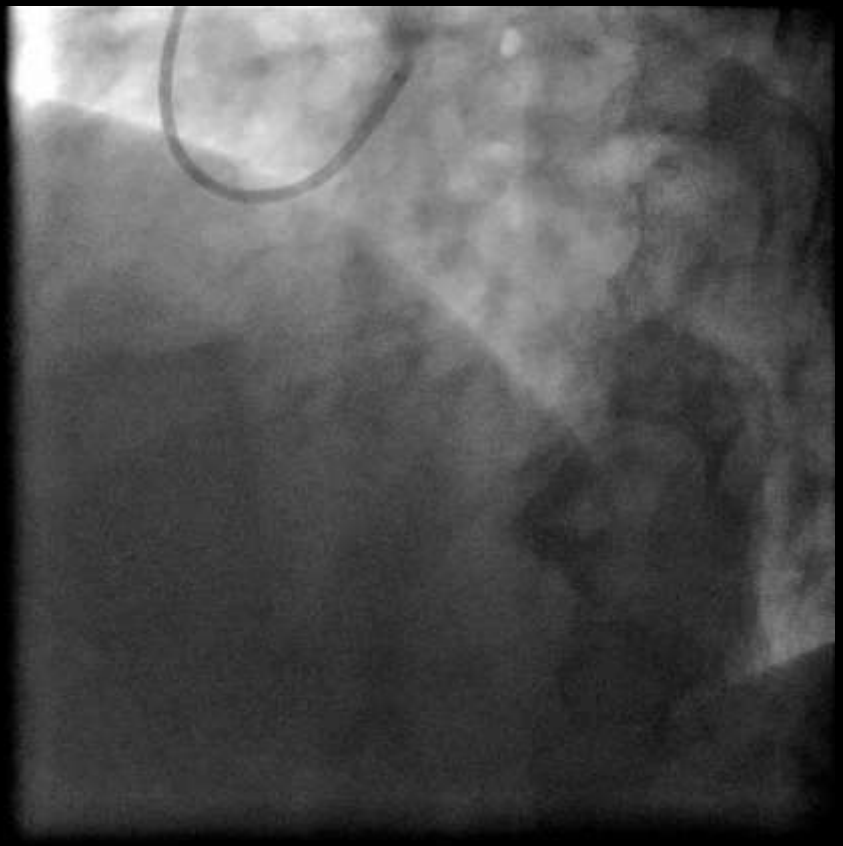


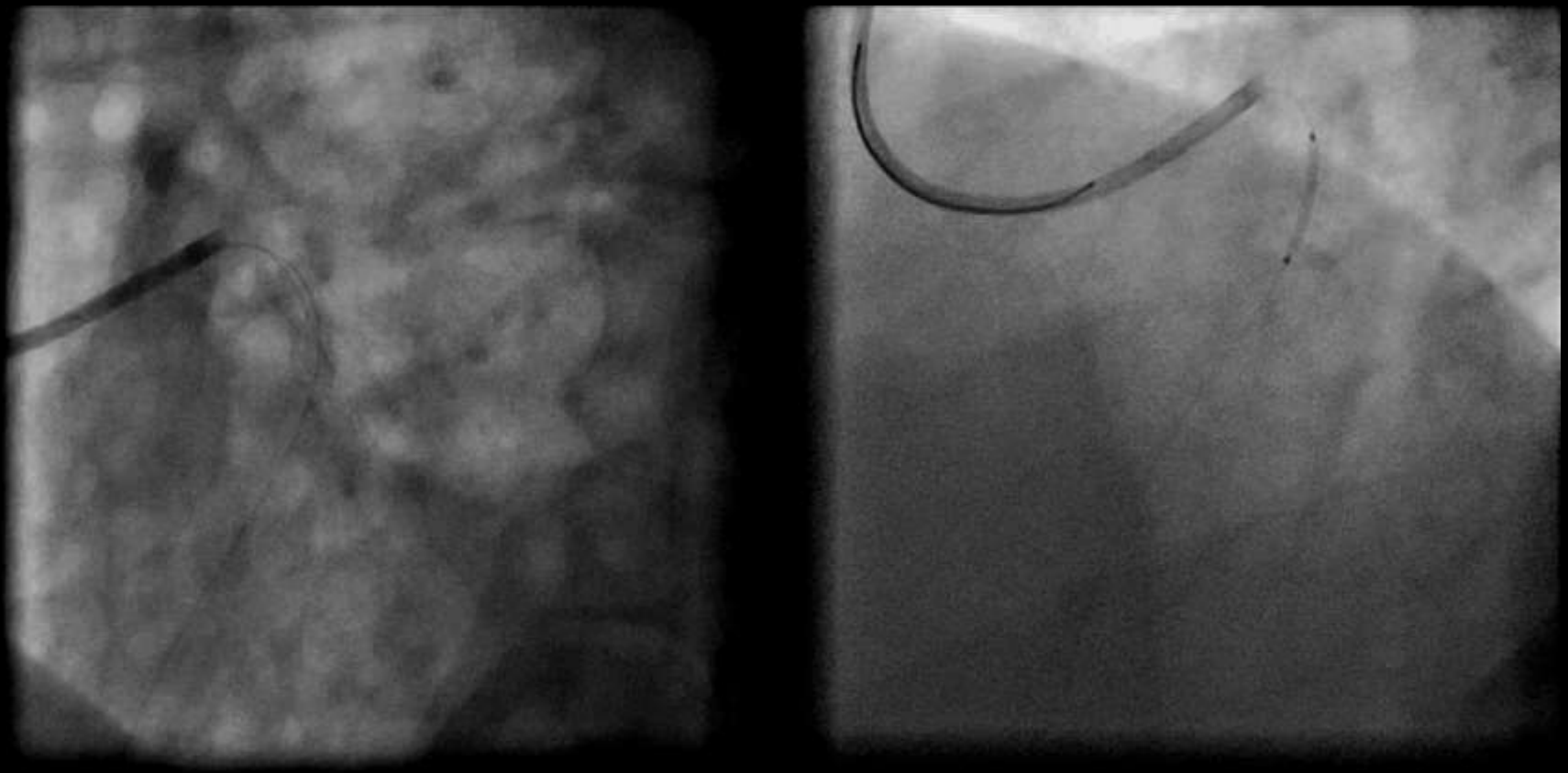


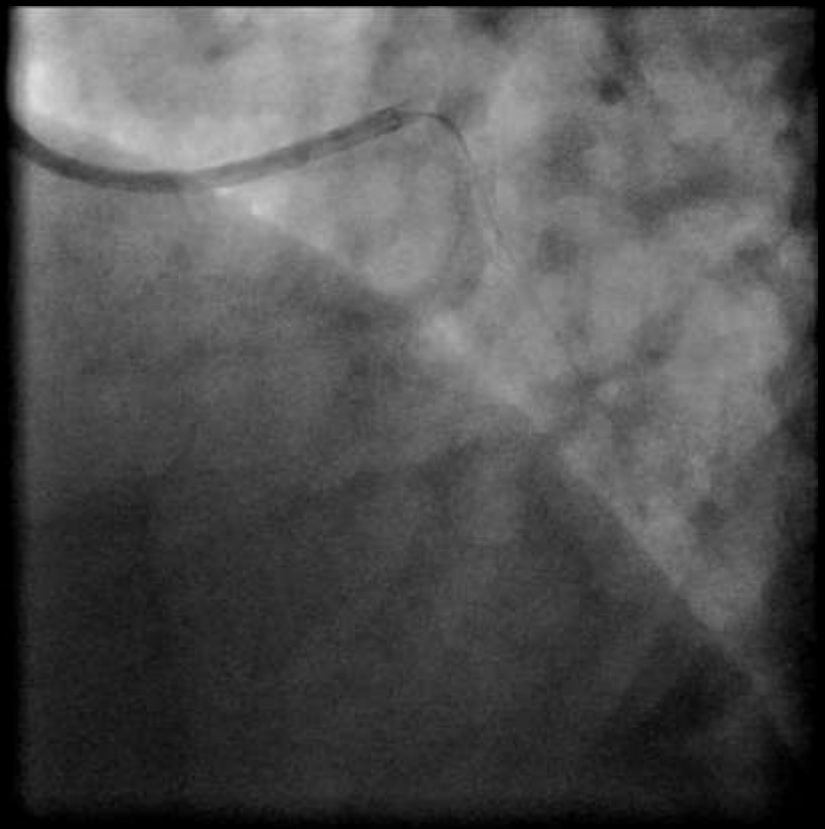






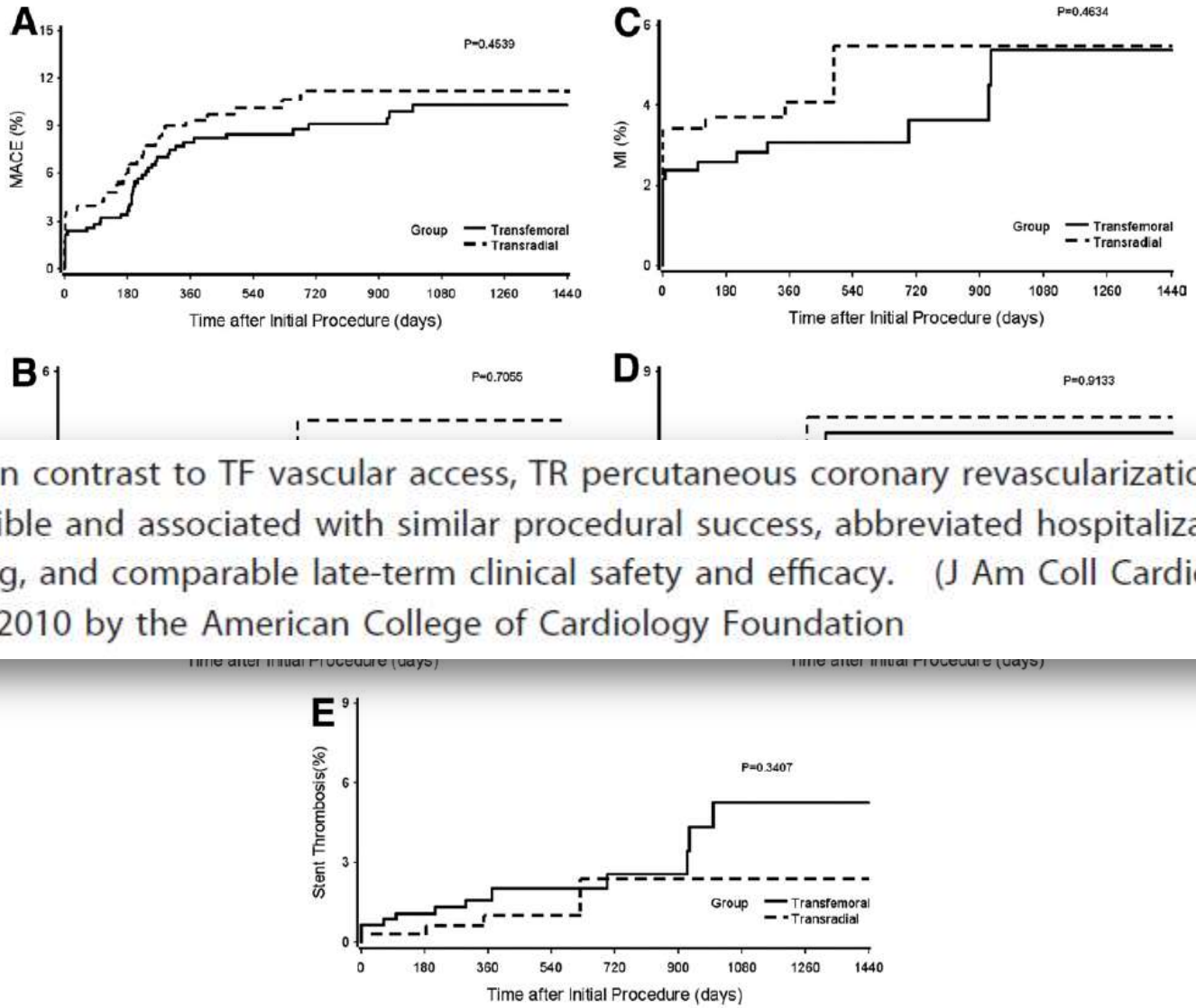






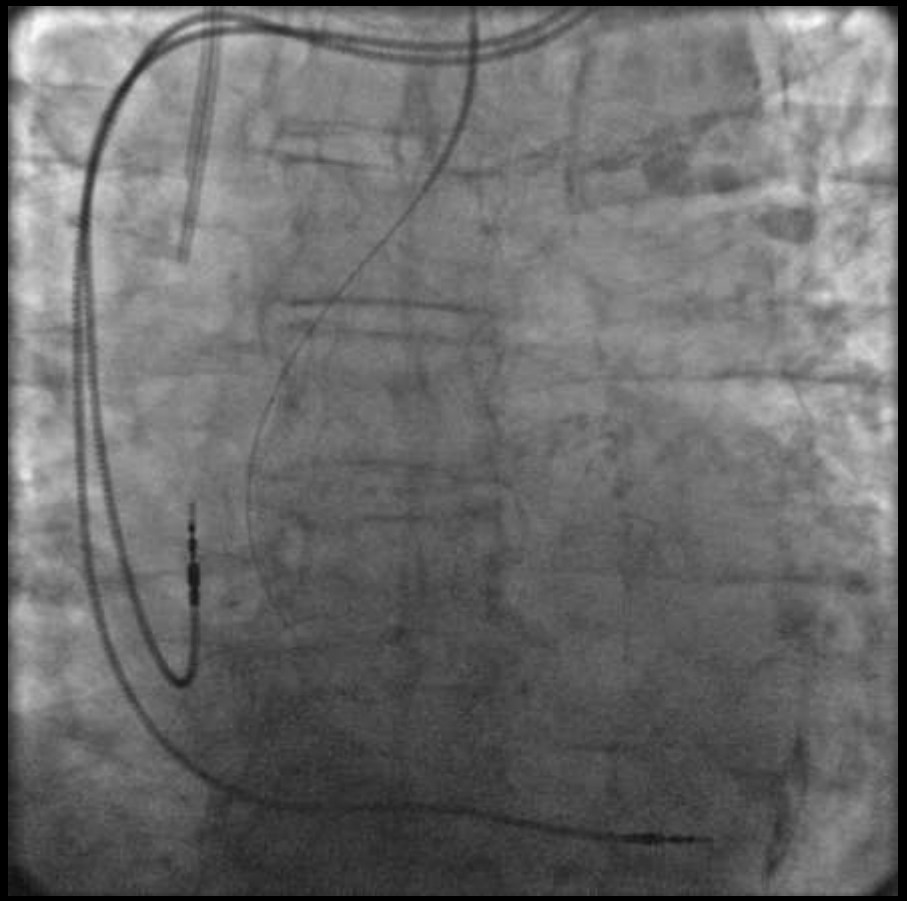
	Transradial (n=353)	Transfemoral (n=468)	p-value
EF (%)	58 10	59 11	0.79
Lesion location			0.56
Isolated LM	22%	19%	
LM+1v	20%	23%	
LM+2v	34%	36%	
LM+3v	24%	22%	
Lesion distribution			<0.01
Ostium	20%	12%	
Shaft	24%	21%	
Bifurcation	56%	67%	
LM PCI technique			0.01
Single stent	81%	62%	
Bifurcation stenting	19%	38%	
Angiographic success	99%	99%	1.00
Procedural success	97%	96%	0.57
Procedure time	61.6±10.9	62.7±10.2	0.13

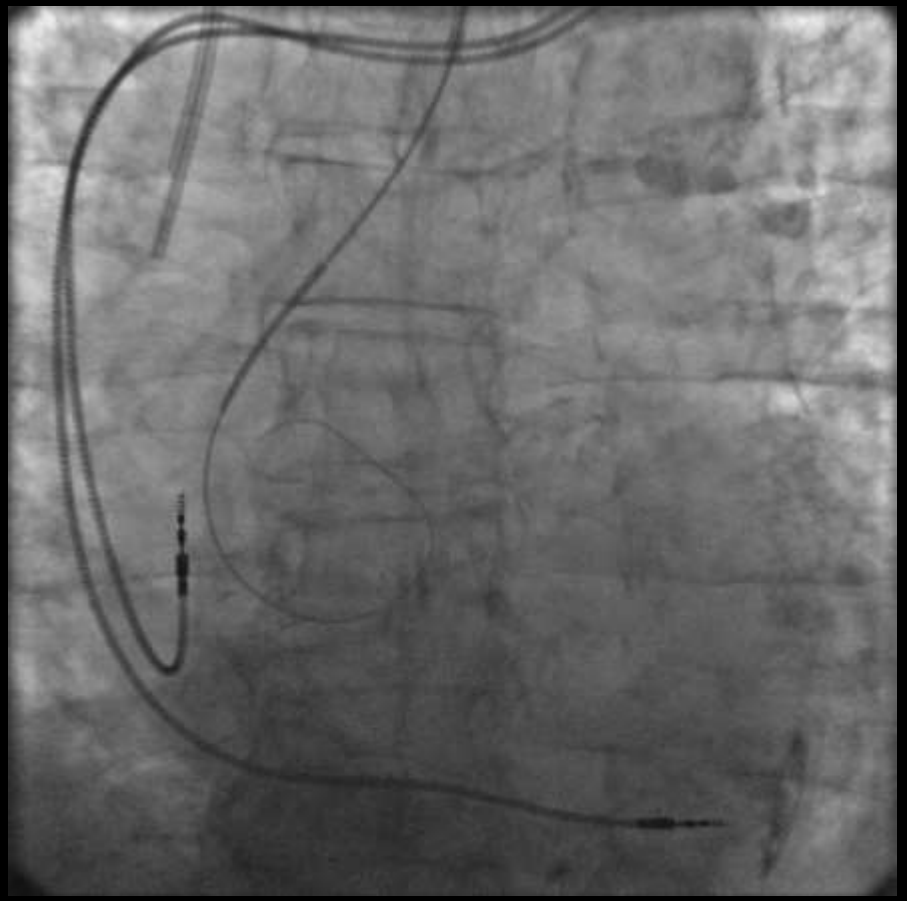
Yang YJ, Kandzari DE, et al. *JACC Interv*. 2010;3:1035-1042

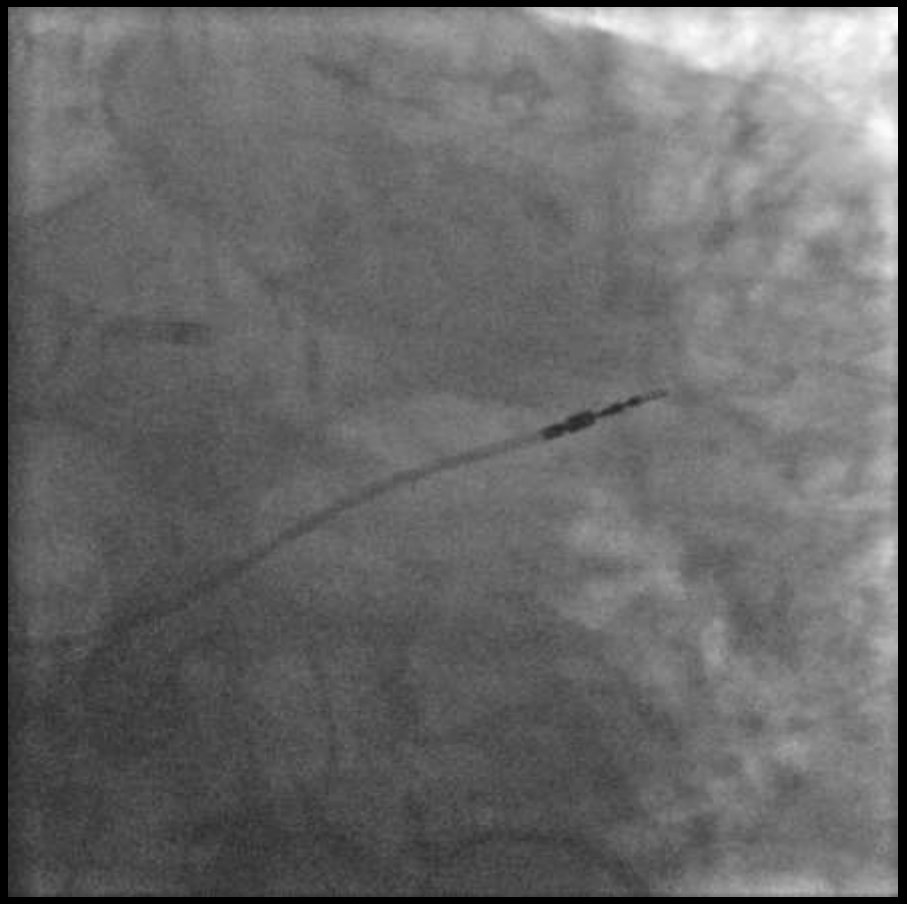


Conclusions In contrast to TF vascular access, TR percutaneous coronary revascularization for UPLM disease is feasible and associated with similar procedural success, abbreviated hospitalization, reduced bleeding, and comparable late-term clinical safety and efficacy. (J Am Coll Cardiol Intv 2010; 3:1035–42)

Yang YJ, Kandzari DE, et al. *JACC Interv*. 2010;3:1035-1042







Coronary Rotational Atherectomy via Transradial Approach: A Study Using Radial Artery Intravascular Ultrasound

CCI 51:234–238 (2000)

Giuseppe Gioia, MD, Cosimo Comito, MD, and Abel E. Moreyra,* MD

High-Speed Rotational Atherectomy during Transradial Percutaneous Coronary Intervention

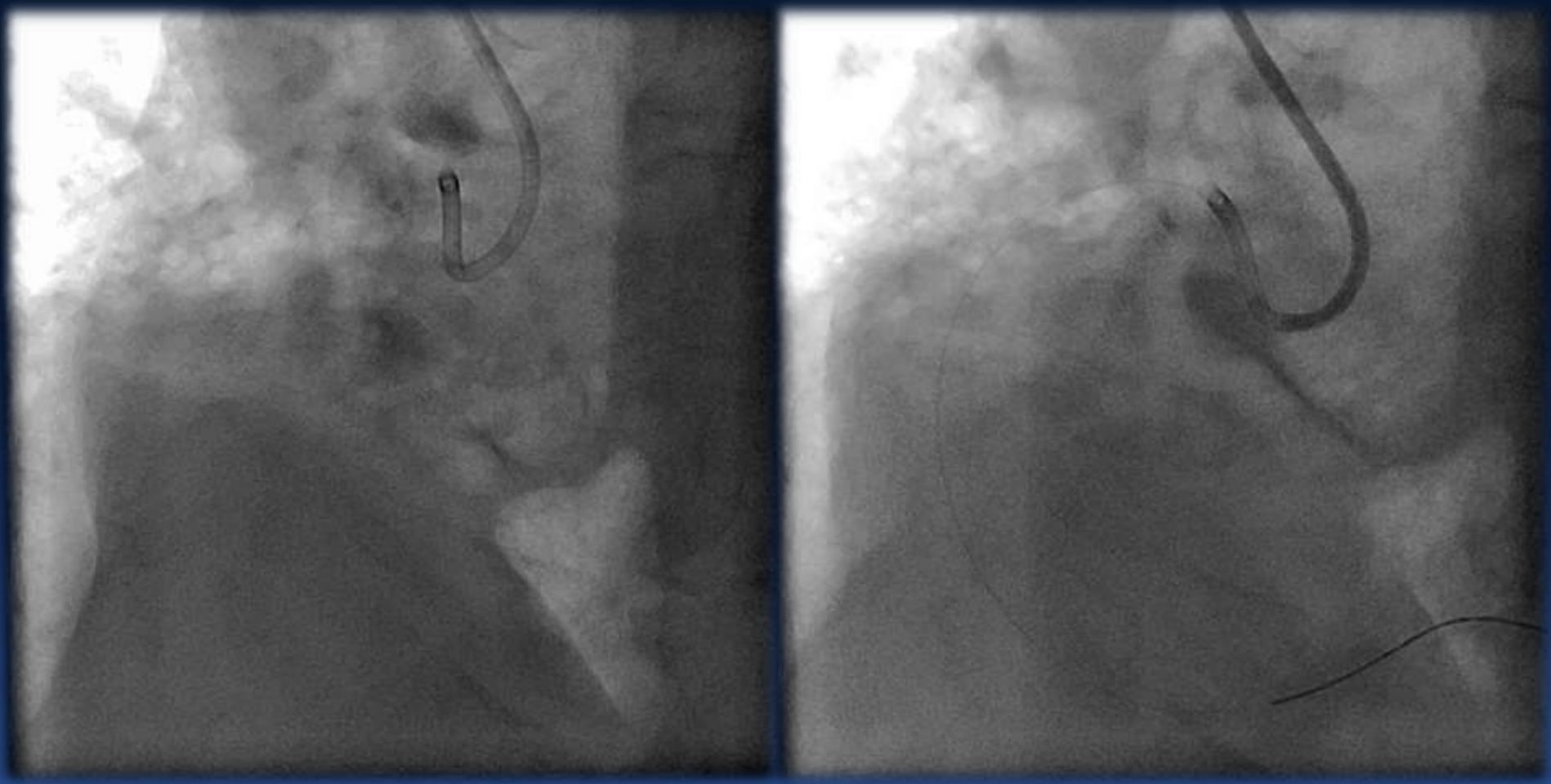
Friday, 08/01/08 | 4882 reads

Author(s):
Mohaned Egred, BSc, MB ChB, MRCP, MD, Mohammed Andron, MSc, MB ChB, MRCP, Albert Alahmar, BSc, MB ChB, MRCP, Khaled Albouaini, MSc, MB ChB, MRCP, Raphael A. Perry, BMBS, FRCP, MD, BSc

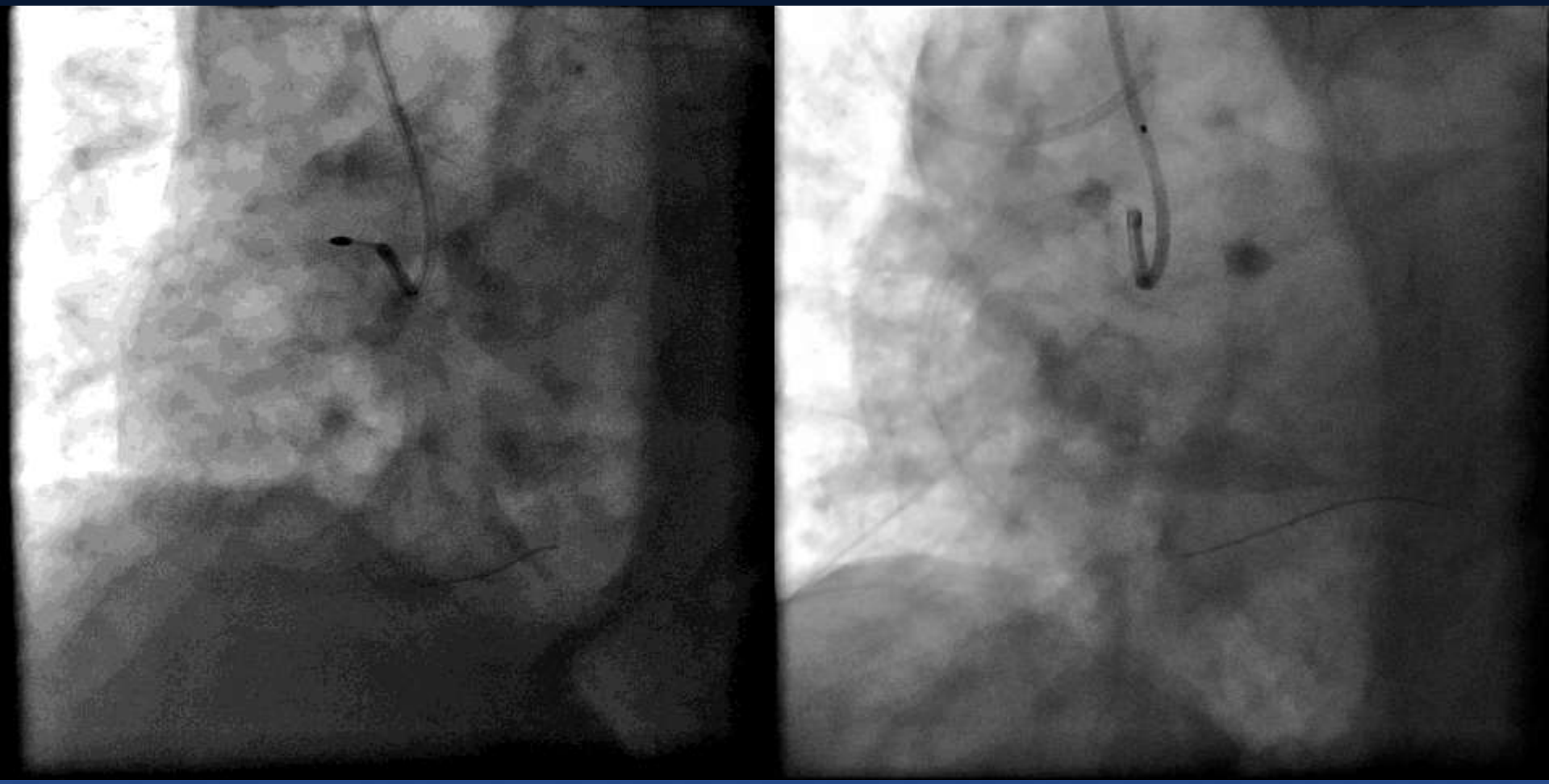
Issue Number:
Volume 20 - Issue 5 - May, 2008

This series of 28 ptsdemonstrates the safety and feasibility of HSRA during radial coronary intervention using a 6 Fr guiding catheter. It extends the clinical experience with the radial approach to HSRA with demonstrable excellent results and the added benefit of increased patient comfort, reduced access site complications and the advantage of early ambulation and discharge.

Rotablator for Ostial Disease



Rotablator for Ostial Disease



A Comparison of the Transradial and the Transfemoral Approach in Chronic Total Occlusion Percutaneous Coronary Intervention

Sudhir Rathore,* MD, MRCP, Abdul Hakeem, MRCS, Maheshwar Pauriah, MRCP, Elved Roberts, MD, MRCP, Andrew Beaumont, BSc, and John L. Morris, MD, FRCA

Procedural Success and In-Hospital Outcomes

Variables	Transradial ($N = 318$)	Transfemoral ($N = 150$)	P
Procedural success (%)	82	86	0.28
Total fluoroscopy time (min ± SD)	24.49 ± 13.18	24.07 ± 14.12	0.36
Total contrast volume (ml ± SD)	395.54 ± 180.25	406.15 ± 173.98	0.27
Total procedure time (min ± SD)	54.22 ± 25.35	60.23 ± 28.15	0.23
In-hospital MI CK >5 times (%)	3.8	3.5	0.40
In-hospital mortality (%)	0	0.7	ns
Urgent CABG (%)	0.62	0.7	ns
Access site complication (%)	3.5	11.3	<0.001
Large access site hematoma (%)	0	2.6	<0.001

CCI 2009; 73:883–887

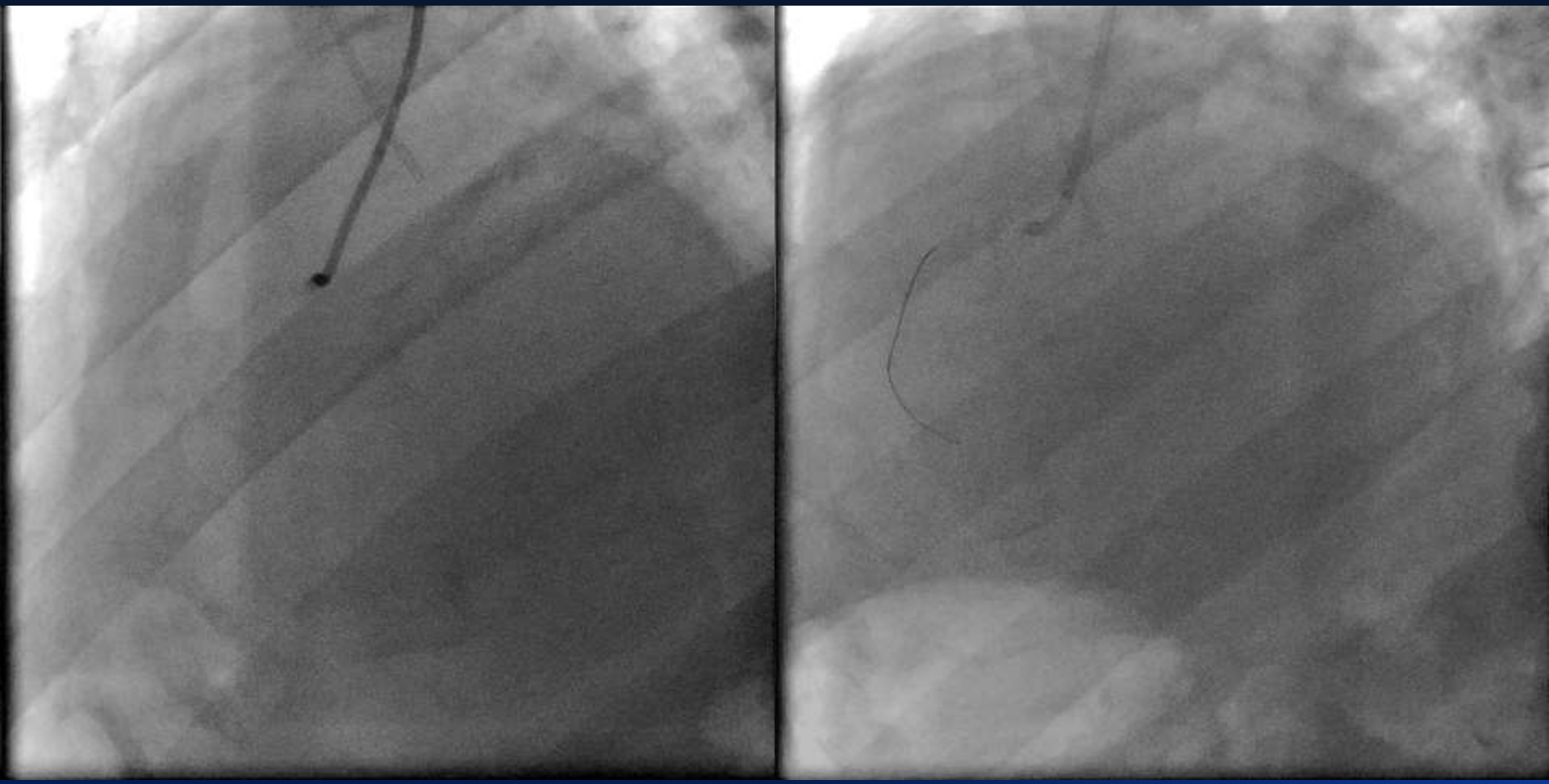
Catheterization and Cardiovascular Interventions 76:102–111 (2010)

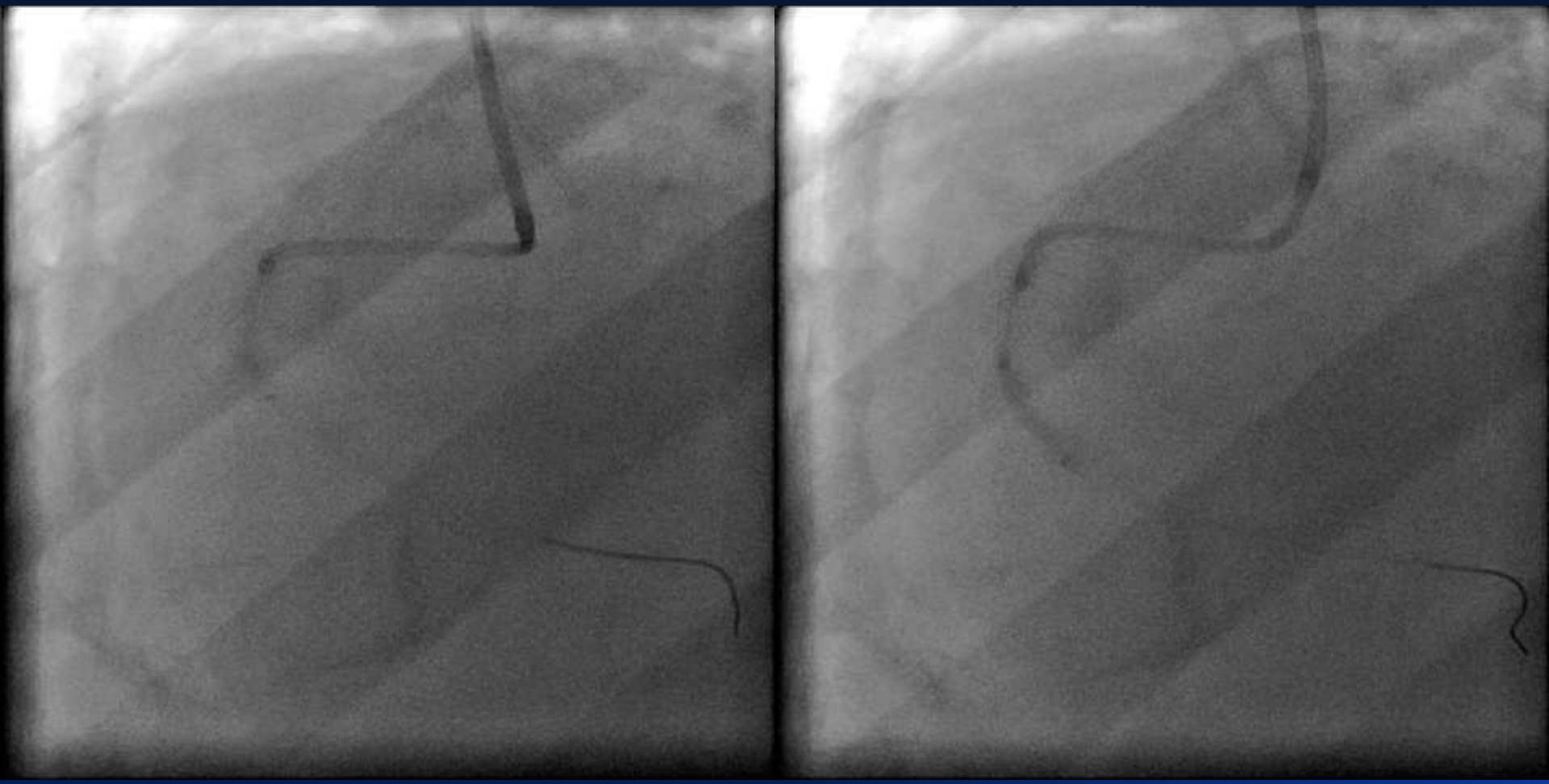
Distal Stent Delivery With Guideliner Catheter: First in Man Experience

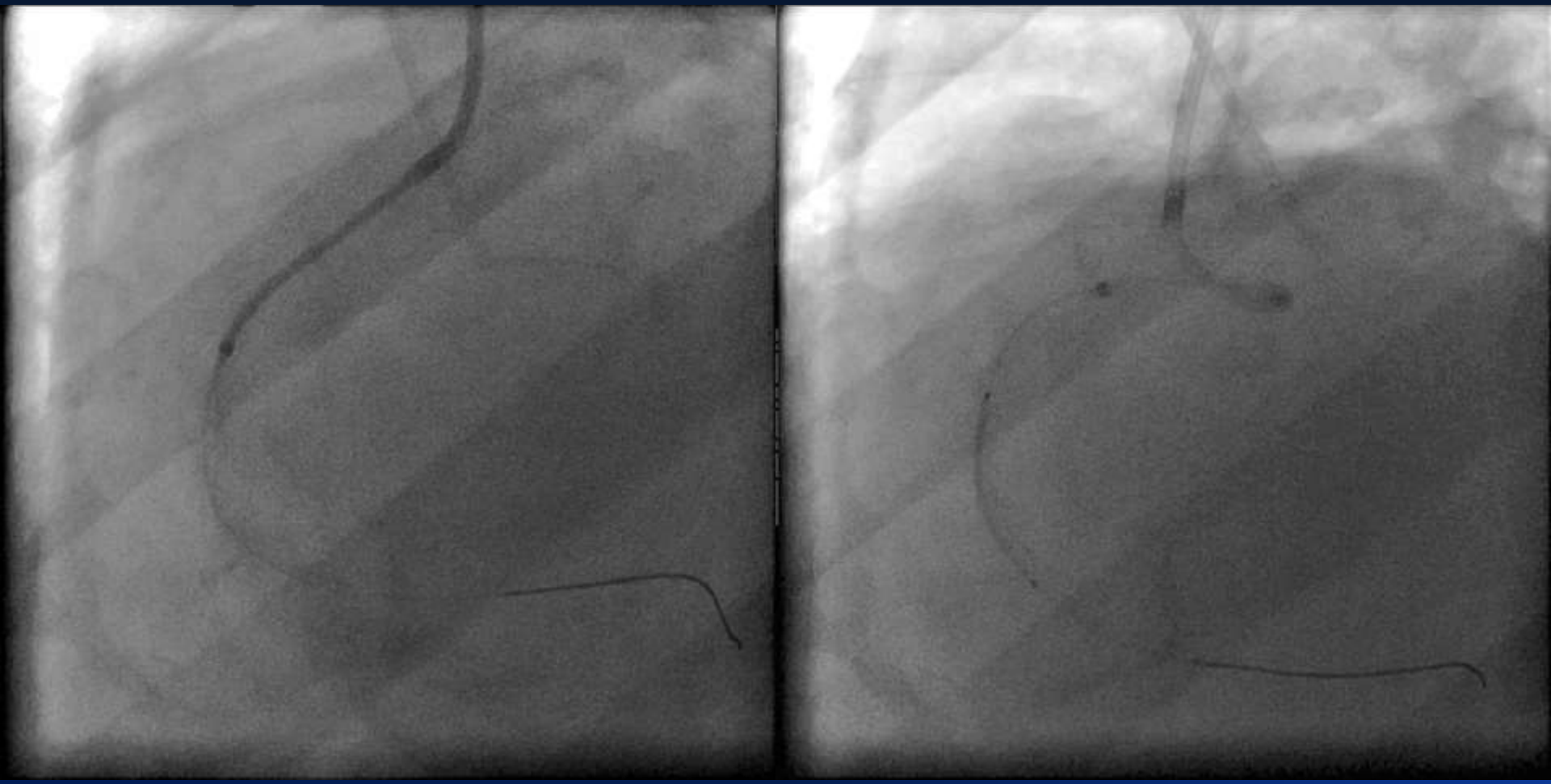
Mamas A. Mamas,[1,2] **PhD, BM BCh, Farzin Fath-Ordoubadi,**[1] **MD, BM BChir, and Douglas G. Fraser,**[1*] **MD, BM BChir**

Failure to deliver stents is one of the commonest causes of procedural failure in contemporary PCI practice. We describe successful use of the Guideliner Catheter, the first purpose designed FDA and CE marked device delivery catheter in 13 complex cases in native coronary vessels and bypass grafts performed via the radial route to enable distal stent delivery following failure of conventional techniques. We discuss how the Guideliner catheter may be used to facilitate difficult radial cases.

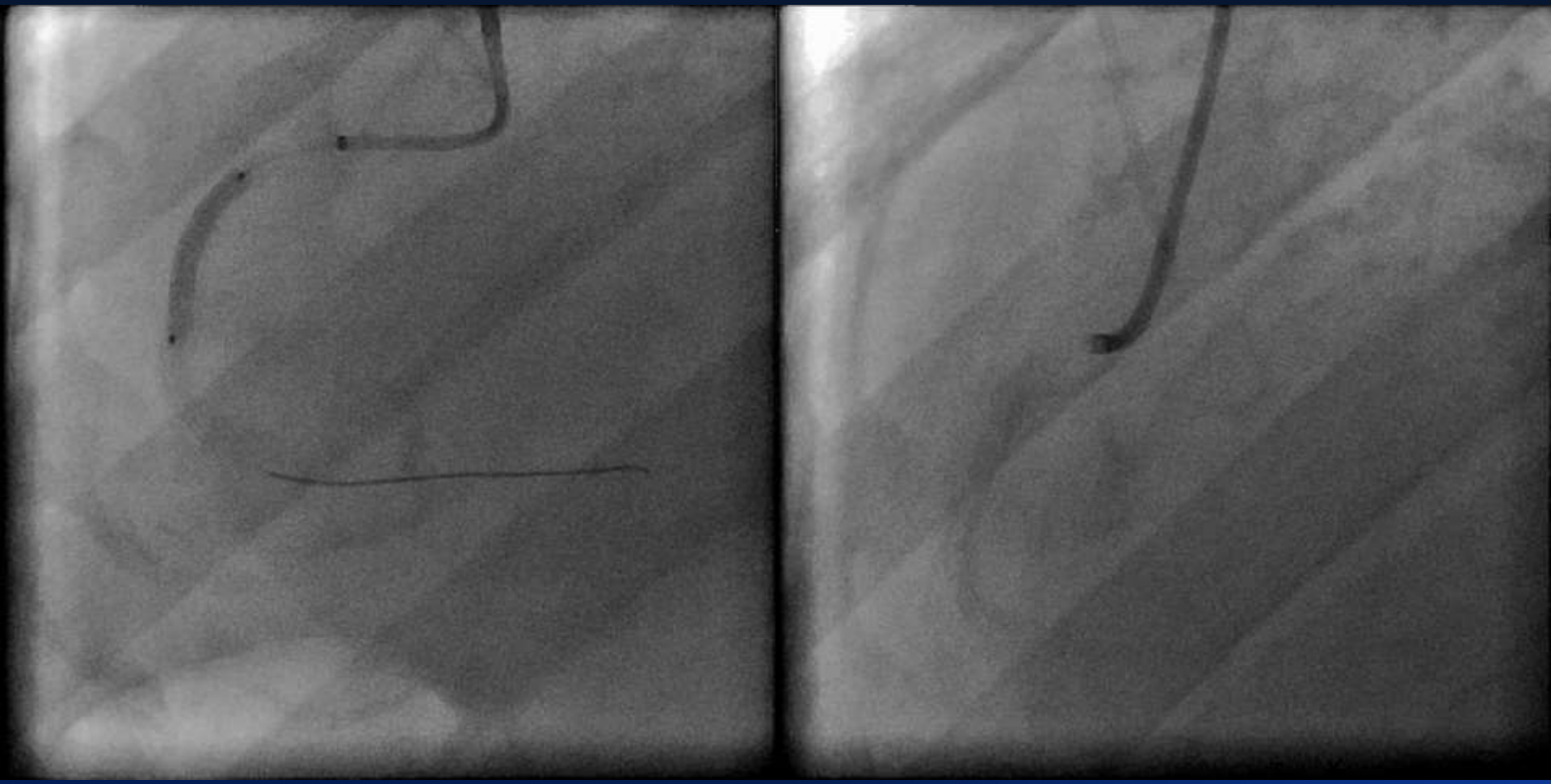
Key words: TRAD; transradial cath; PCI; percutaneous coronary intervention; ANGO; angiography; coronary





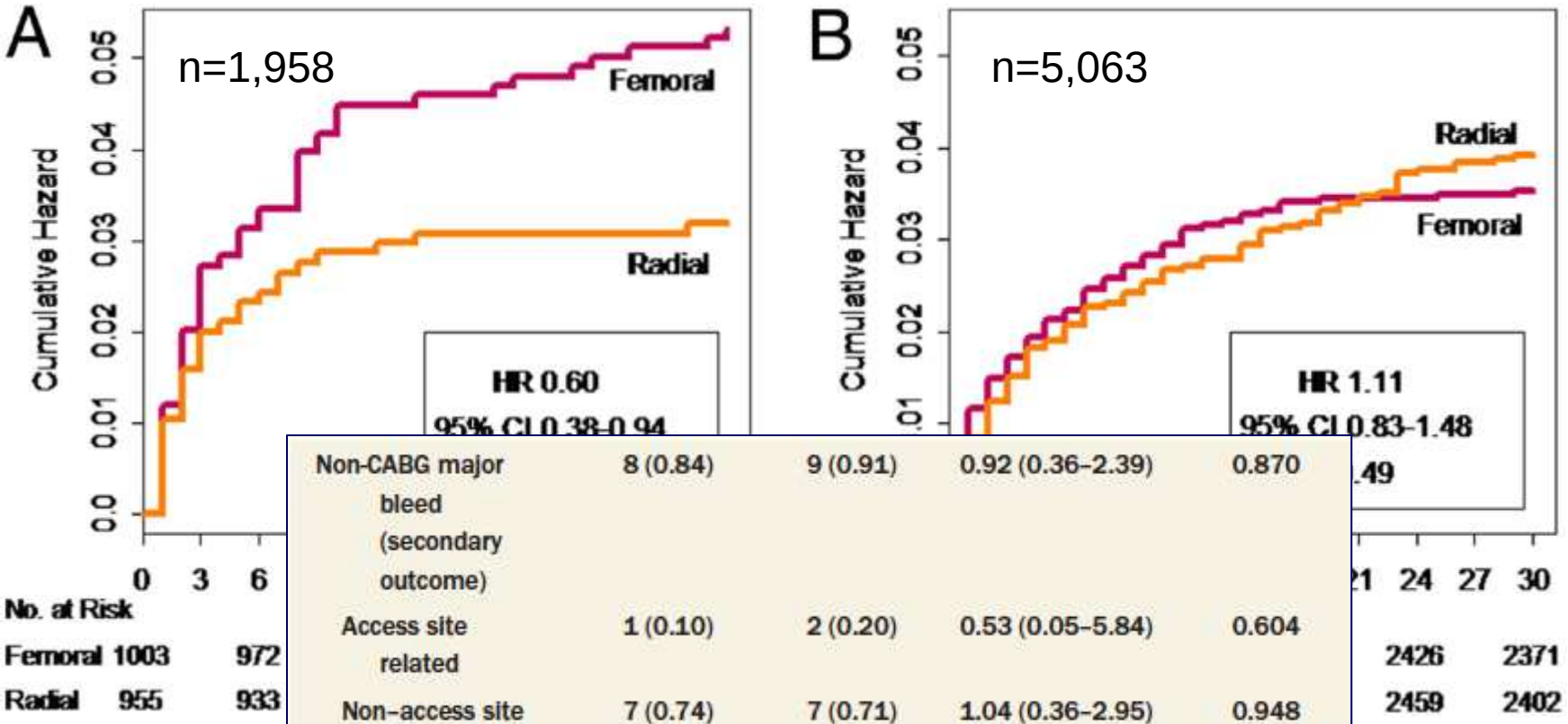


Guideliner Case



RIVAL Trial – STEMI Analysis

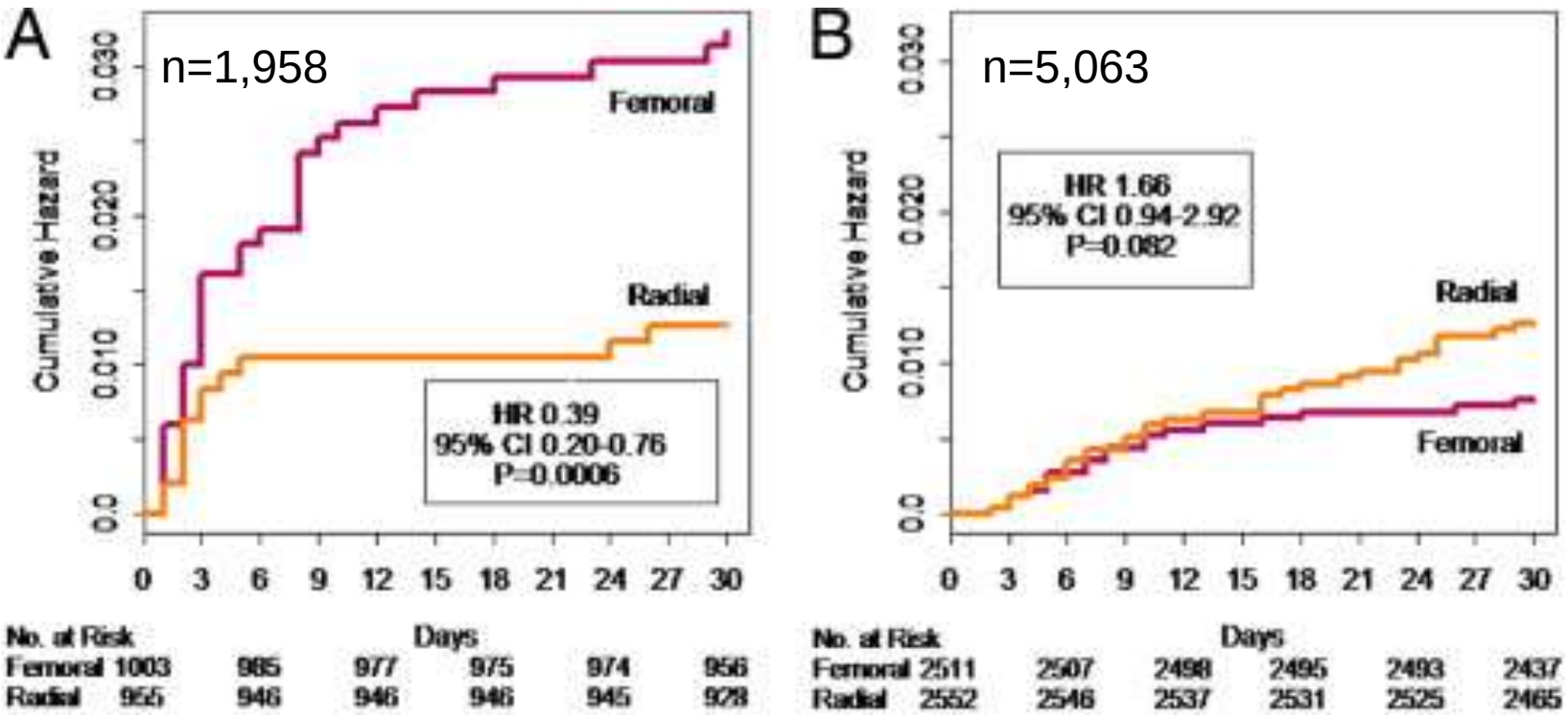
CV Death, MI, Stroke, or Non-CABG Major Bleeding



Non-CABG major bleed (secondary outcome)	8 (0.84)	9 (0.91)	0.92 (0.36–2.39)	0.870
Access site related	1 (0.10)	2 (0.20)	0.53 (0.05–5.84)	0.604
Non–access site related	7 (0.74)	7 (0.71)	1.04 (0.36–2.95)	0.948
ACUITY major bleed	19 (1.99)	41 (4.10)	0.49 (0.28–0.84)	0.009
Access site related	12 (1.26)	34 (3.39)	0.37(0.19–0.72)	0.003
Non–access site related	7 (0.74)	7 (0.71)	1.04 (0.36–2.95)	0.948

RIVAL Trial – STEMI Analysis

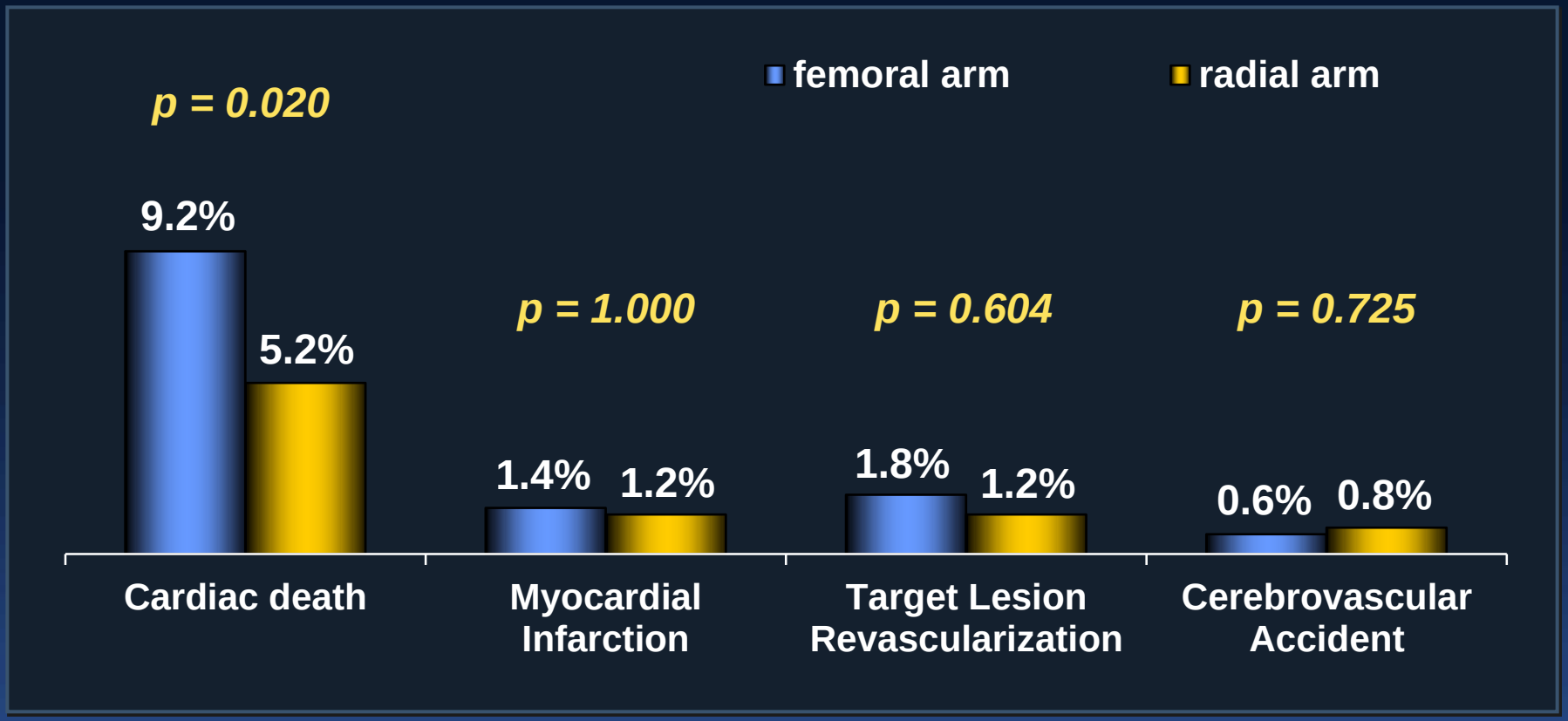
Death



interaction p value = 0.001

RIFLE STEACS – results

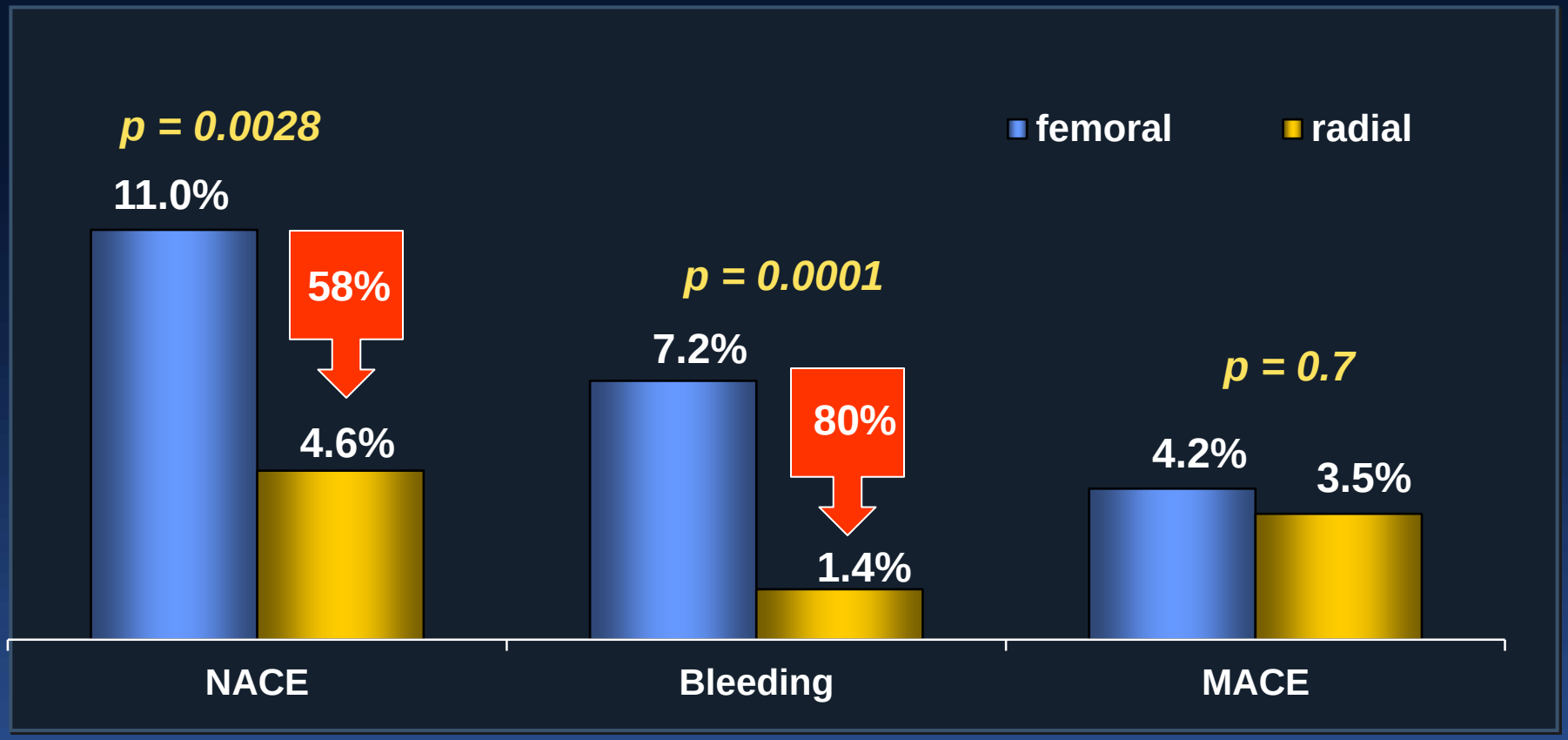
30-day MACCE rate



Romagnoli E et al. TCT 2011

STEMI RADIAL - results

30-day NACE



Net Adverse Clinical Event (*NACE*) = MACE + major bleeding
MACE = composite of death, myocardial infarction and stroke

Bernat I et al. J Am Coll Cardiol 2014;63:964–72)

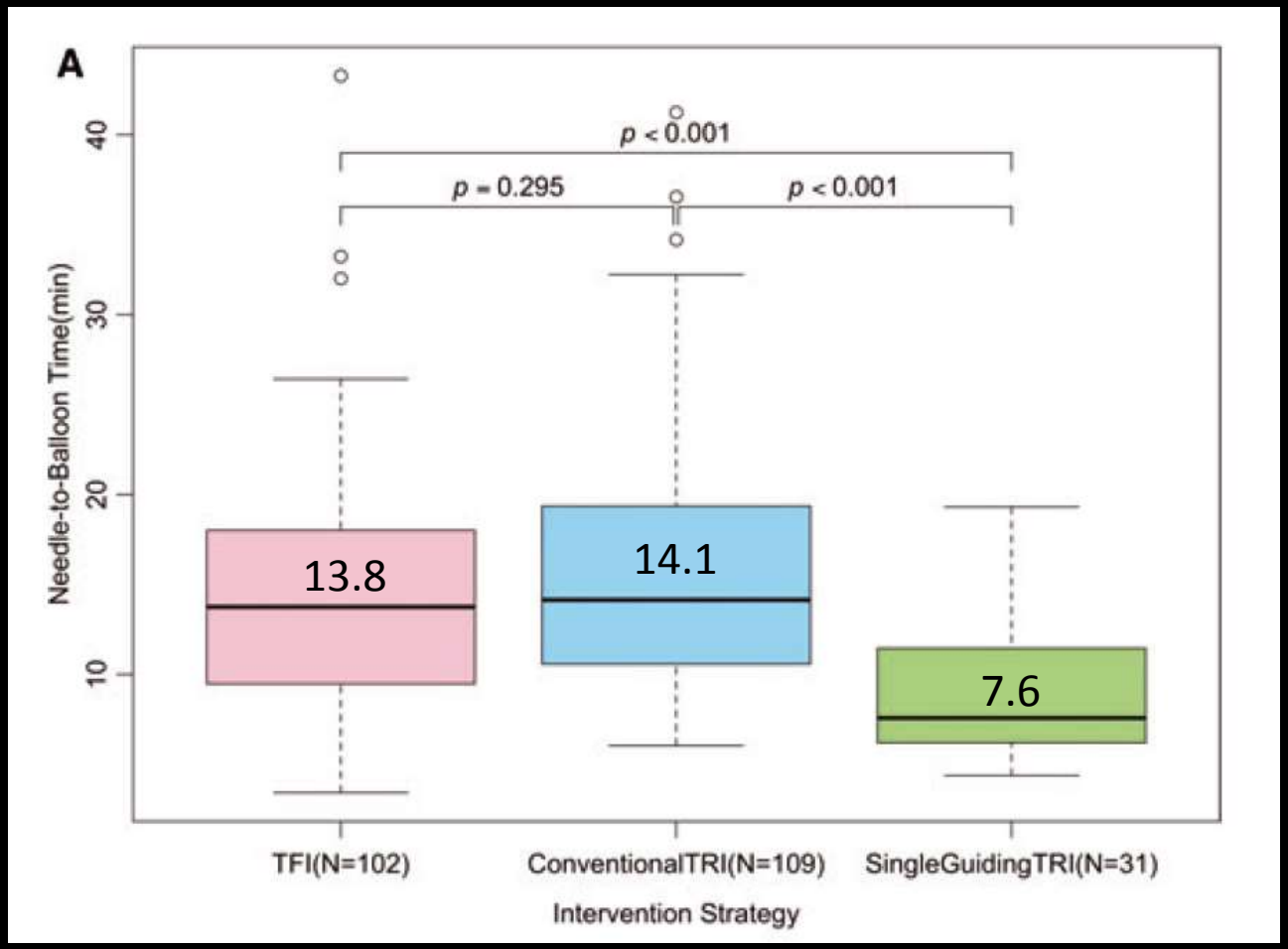
Inject Culprit or Non-Culprit First?

	PCI First (n=562)	Angio First (1,338)	P-value
Contrast (ml)	187±64	183±67	0.25
DTB (min)	32 (24-52)	40 (30-69)	<0.0001
DTB ≤ 60 min	80%	71%	<0.0001
DTB ≤ 90 min	93%	84%	<0.0001
Procedure time (min)	42±22	41±21	0.47
Fluoro time (min)	11±9	12±8	0.23

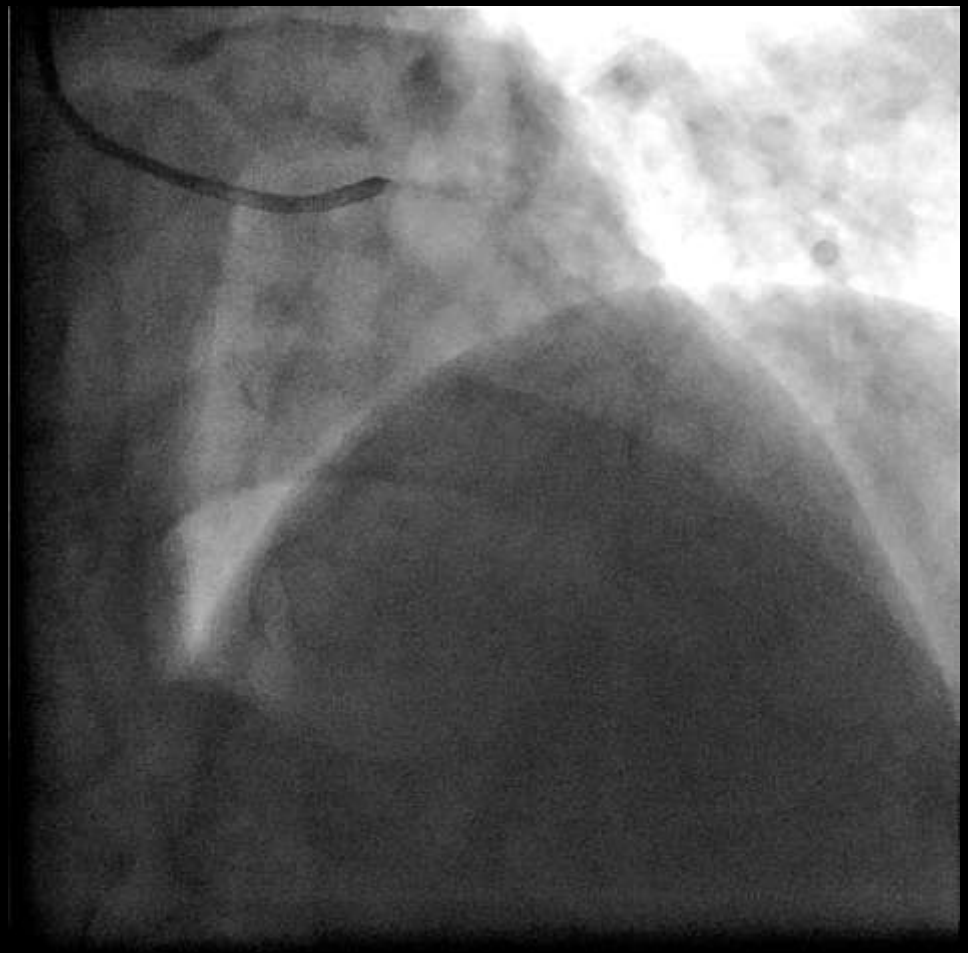
Plourde G et al. Am J Cardiol 2013;111:836-840

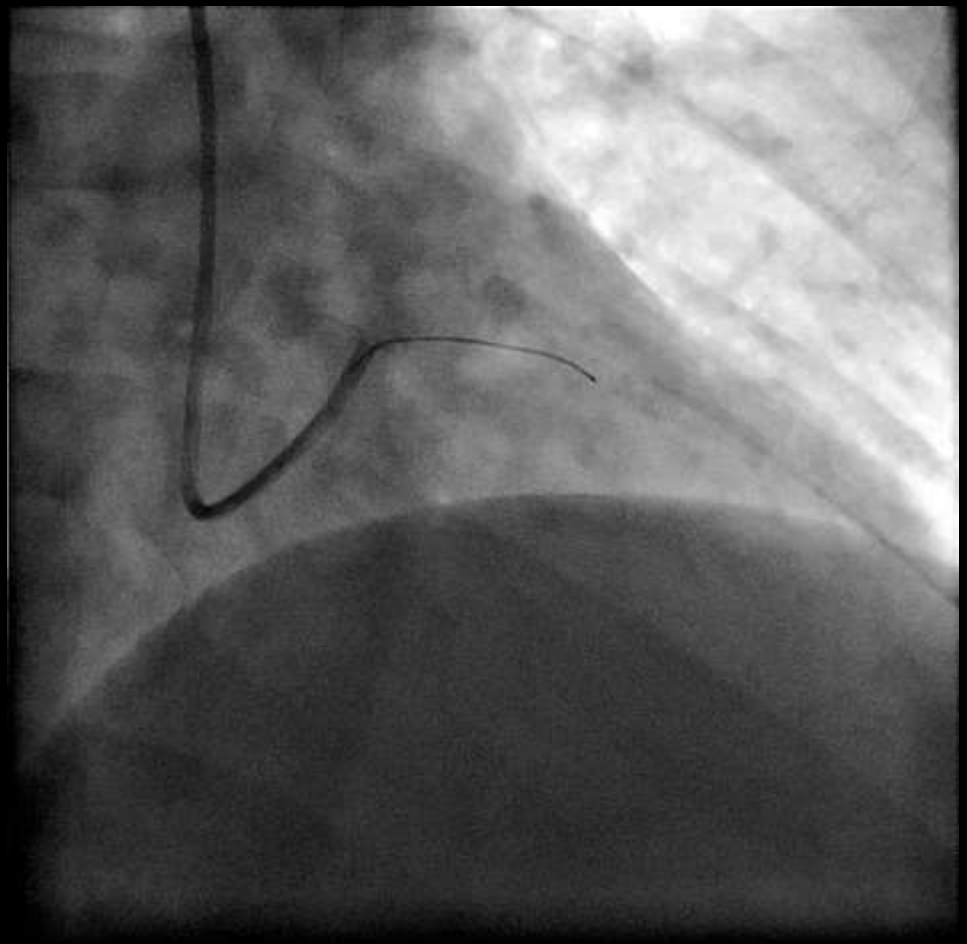
How About Using a Single Catheter?

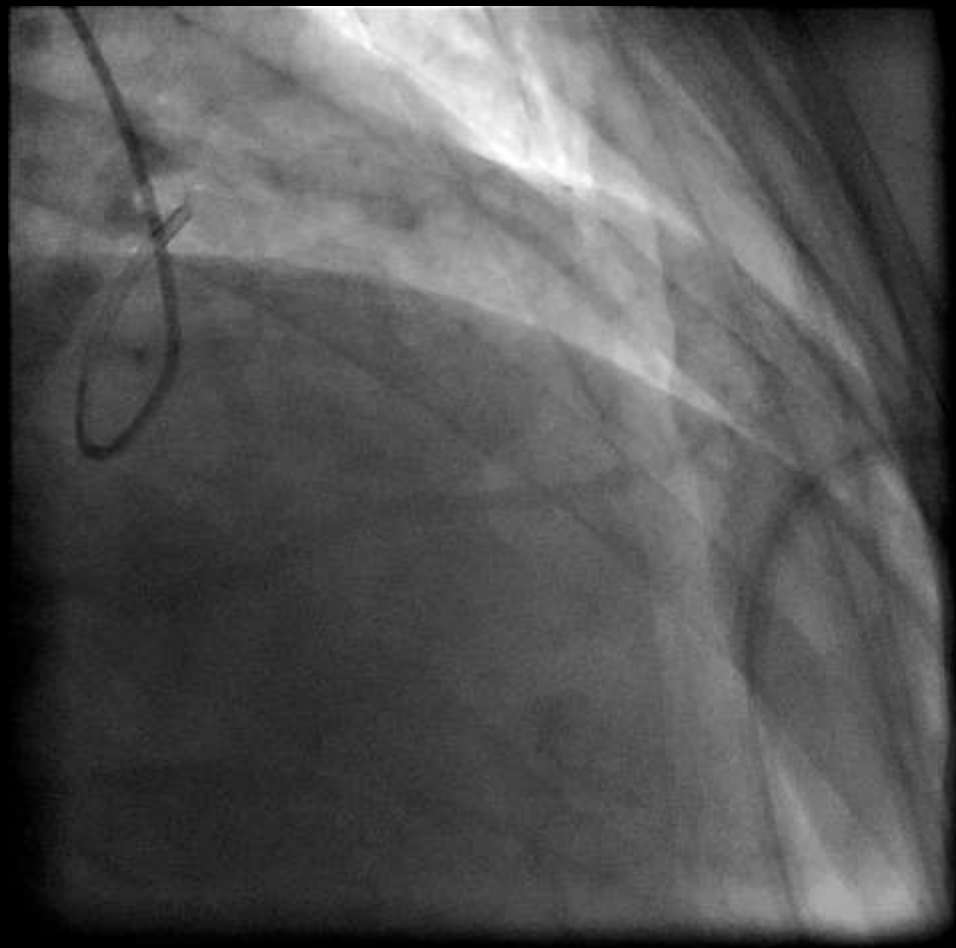
Door to Needle Time

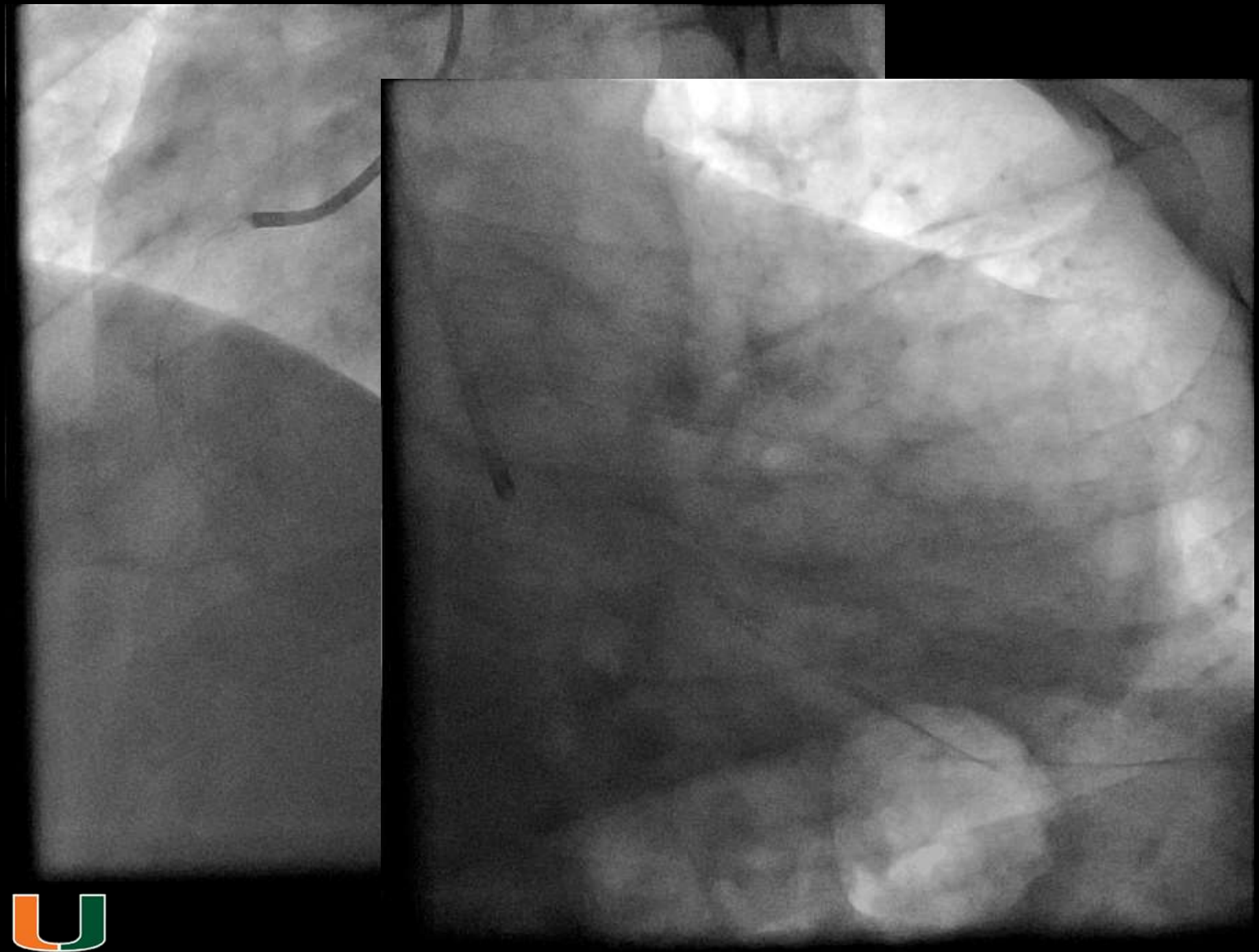


Moon KW et al. J Interven Cardiol 2012;25:330–336









Conclusions

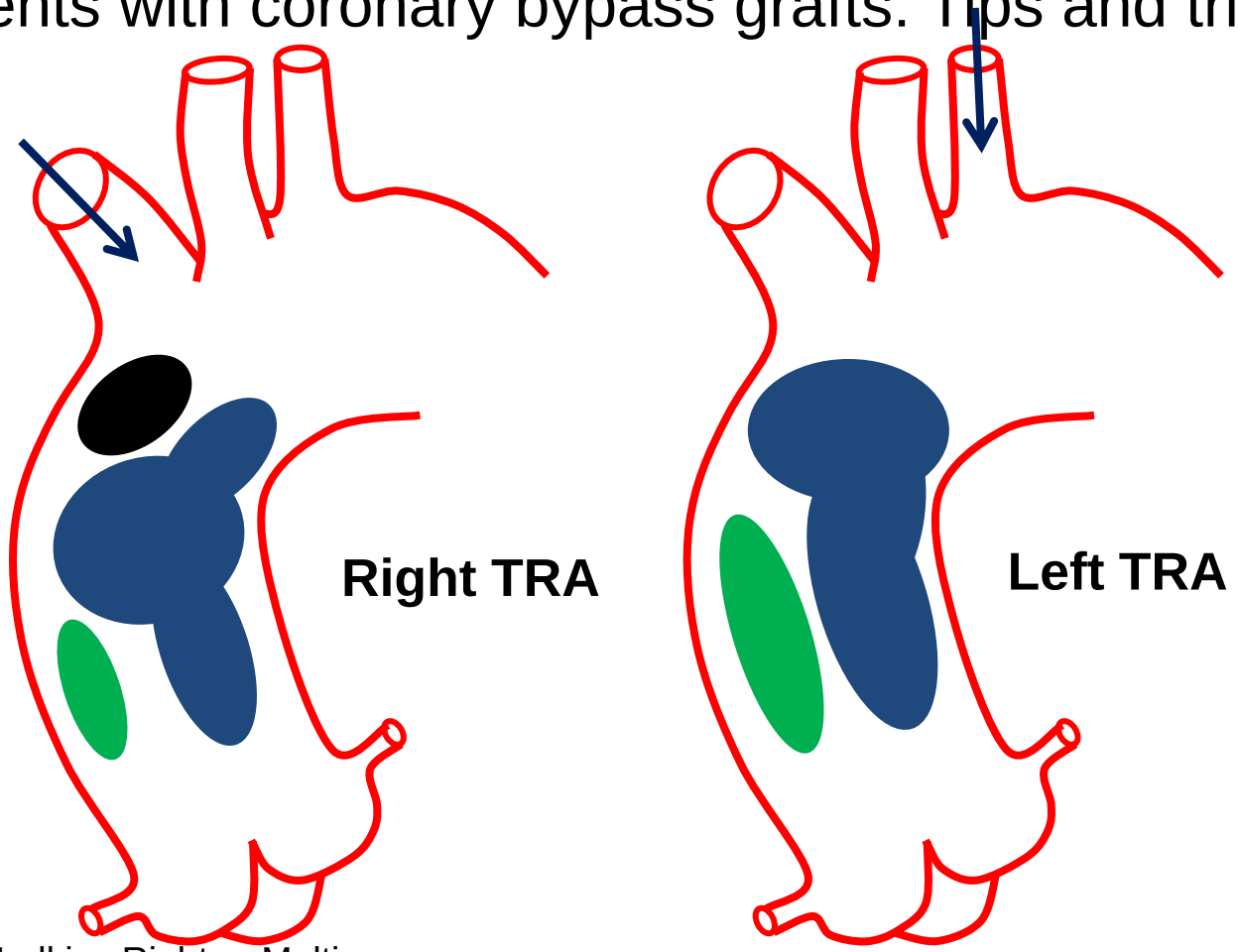
- TRA is feasible for most complex interventions
- There is virtually no restrictions to the devices that can be used
- The benefits of TRA in terms of safety, bleeding, patient comfort extend to complex cases
- TR STEMI PCI is associated with mortality reduction
- Experience is key

TRA in Patients with Grafts

Pattern of coronary grafting	Suggested primary approach	Comments
LIMA	Left Radial	Documented facilitation compared to femoral approach
LIMA + RIMA	Right Radial or Femoral	Avoid contralateral cannulation in severe atherosclerosis of the aortic arch and subclavian arteries
LIMA + RIMA + RA	Femoral	
LIMA + SVG(s)	Left Radial	Consider aortography to visualize SVGs and facilitate catheter selection
SVG(s)	Right Radial or Left Radial	Left radial easier, specially during the learning curve

Burzotta F et al. CCI 2008;72:263-272

Patients with coronary bypass grafts: Tips and tricks



Judkins Right or Multipurpose

Amplatz Left or Tiger (Judkins left or Multipurpose from left TRA)

Amplatz left, Hockey Stick, Extra backup

Burzotta F et al. CCI 2008;72:263-272