

# How Can Simple CTO Become Complicated?

DEBABRATA DASH

*Interventional Cardiologist*

*Nanavati Superspeciality & Fortis Hospitals  
Mumbai*

*Visiting Professor, Beijing Tiantan Hospital*

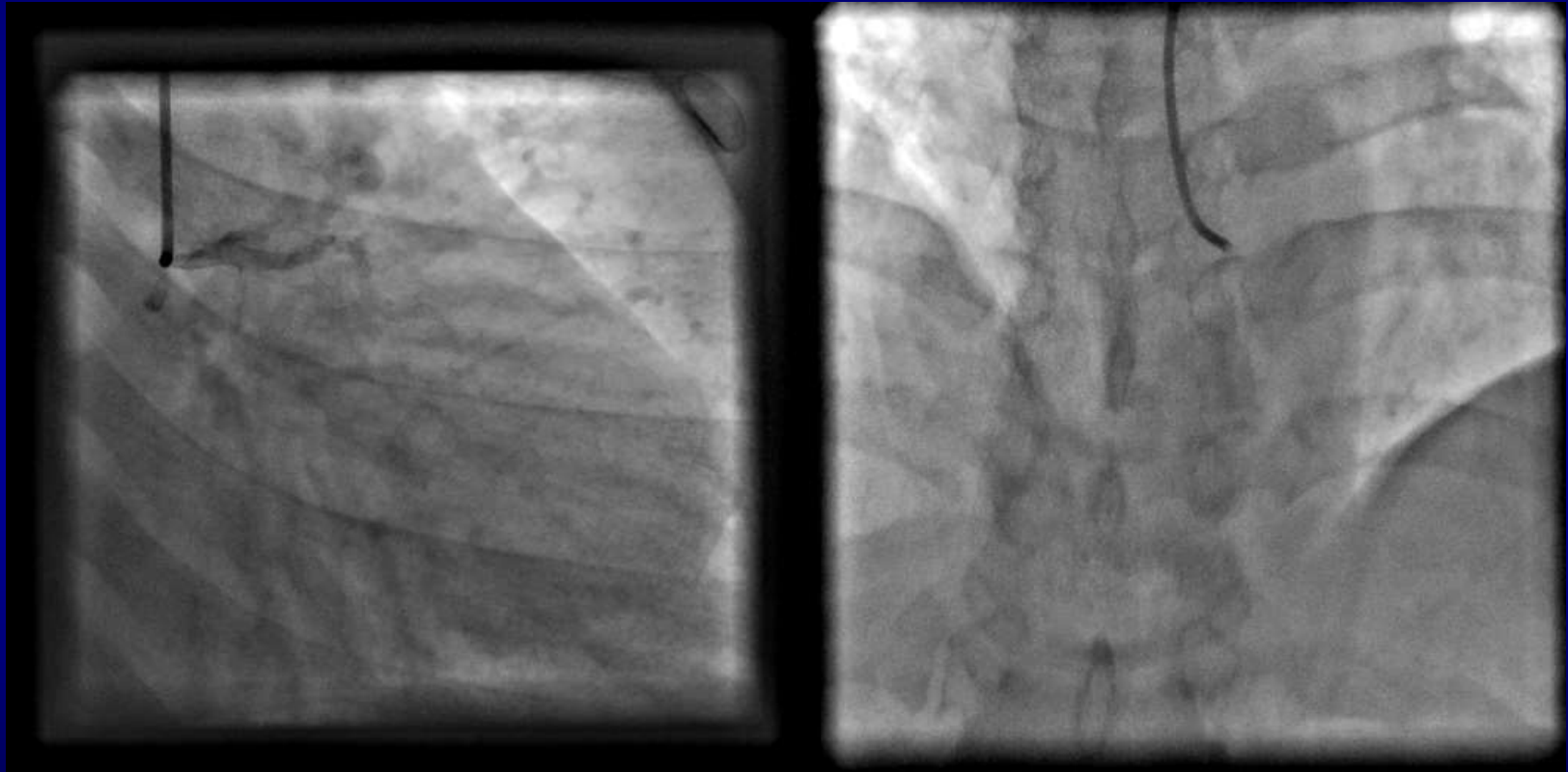
# Overview

- Complications are not uncommon in CTOs
- Occurs often from trivial slip leading to cascade of events spiraling down towards disaster
- No room for bravado, no place for slapdash, attention to detail is everything

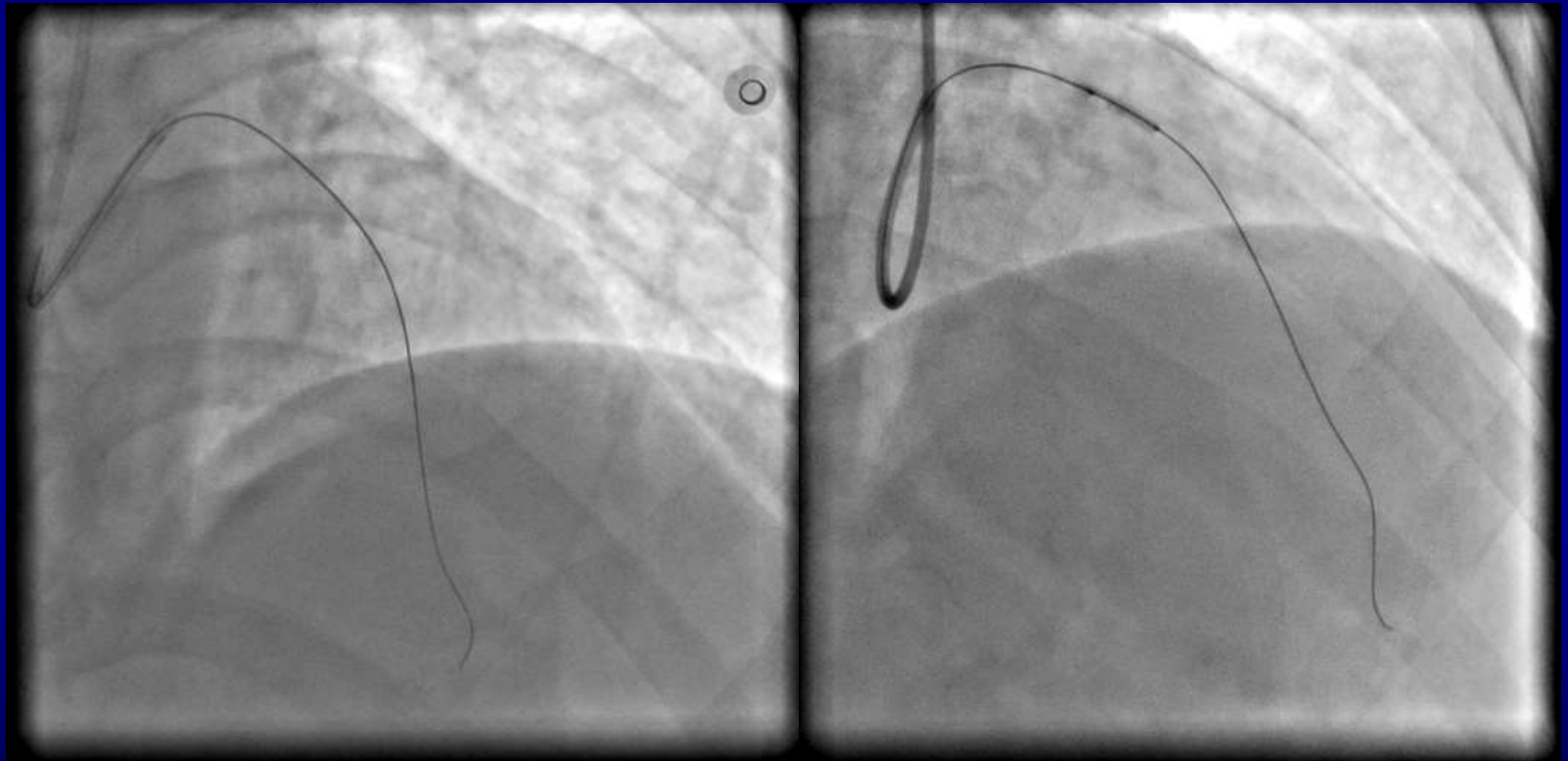
# Case

- 42 yrs old gentleman with effort angina - class II of 6 month duration.
- Smoker and hypertensive
- No H/O of dyslipidemia
- Echo: No RWMA with LVEF of 65%

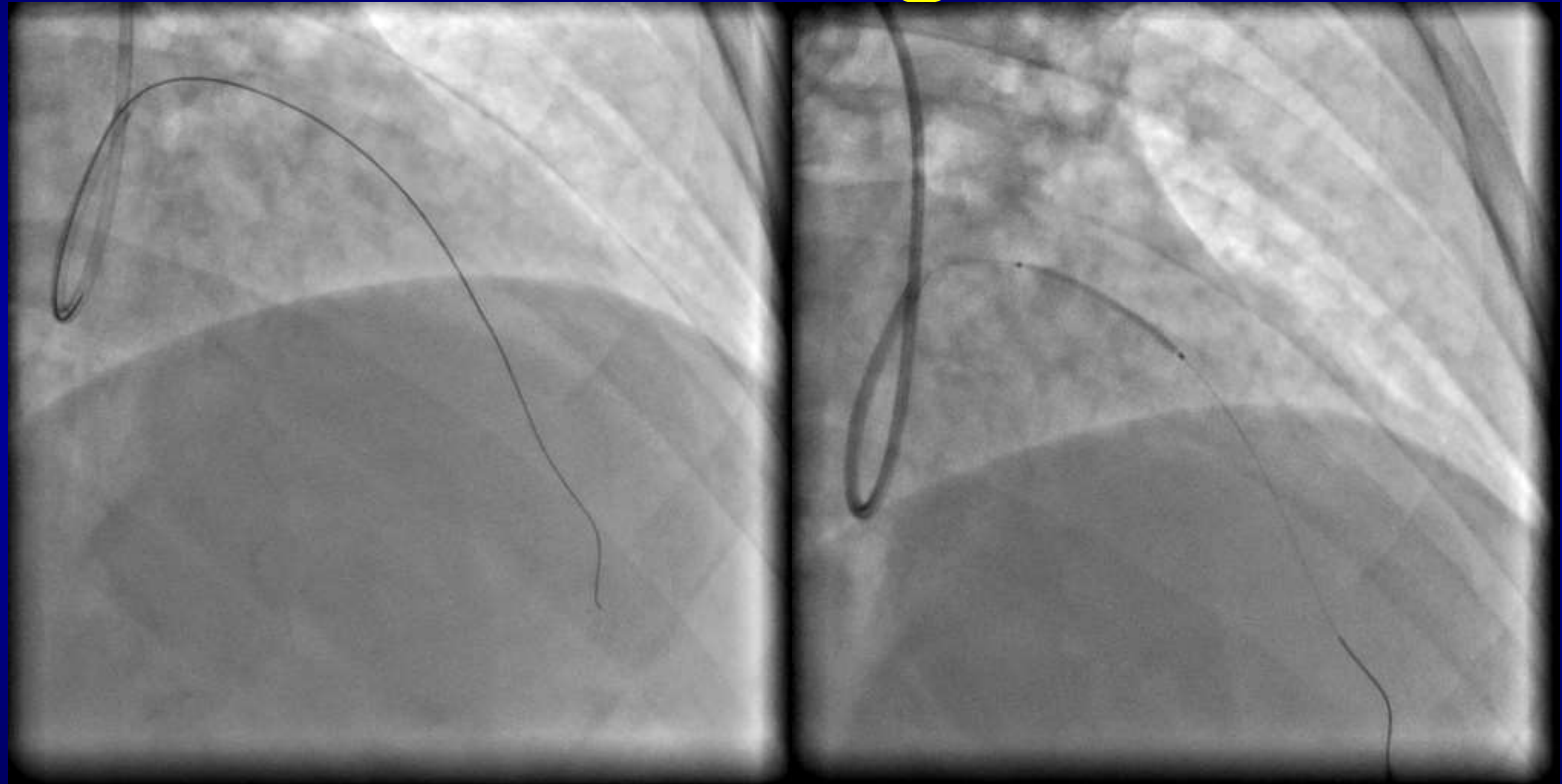
# LAD CTO with Grade 2 CC



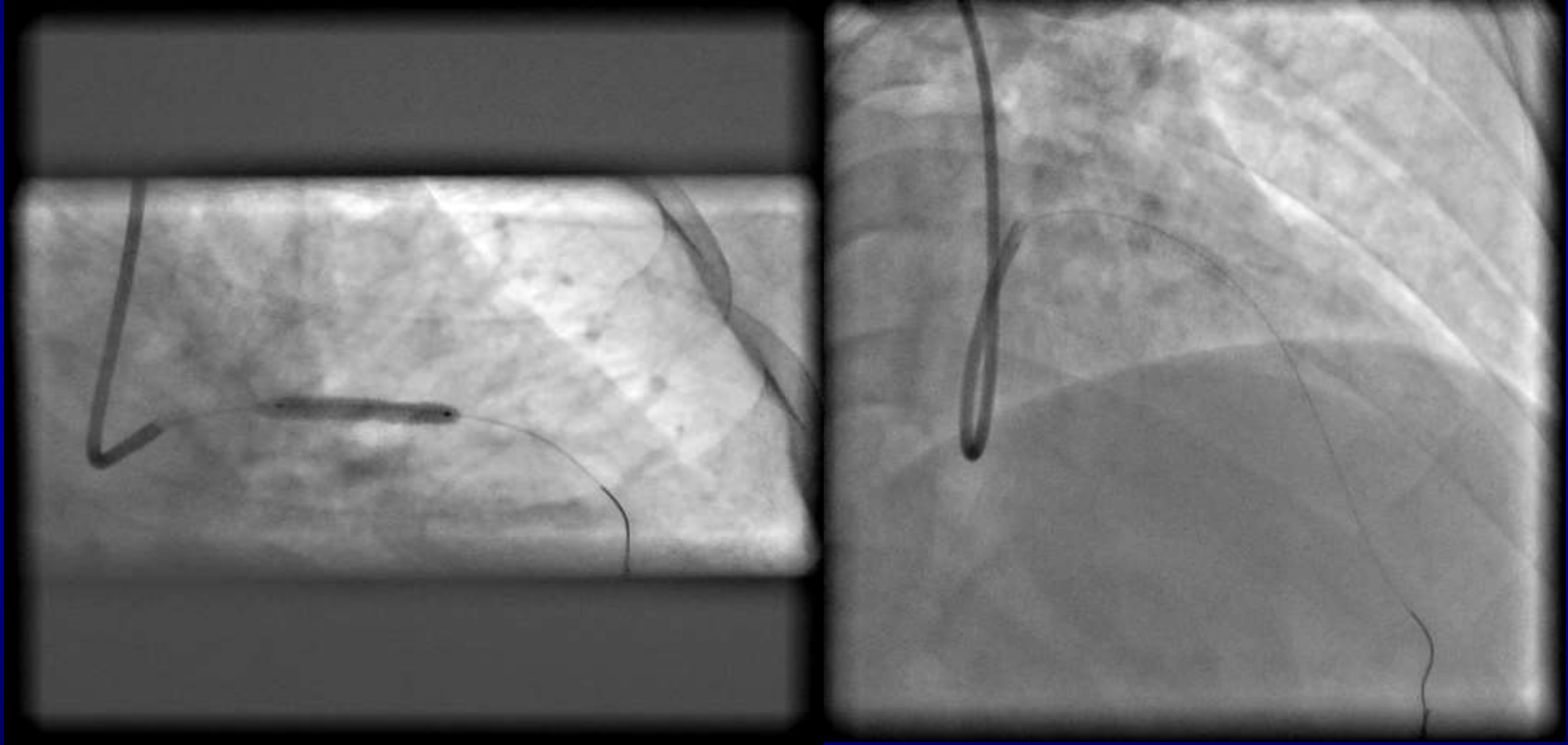
# Fielder XTR with 2.5x12 mm Balloon



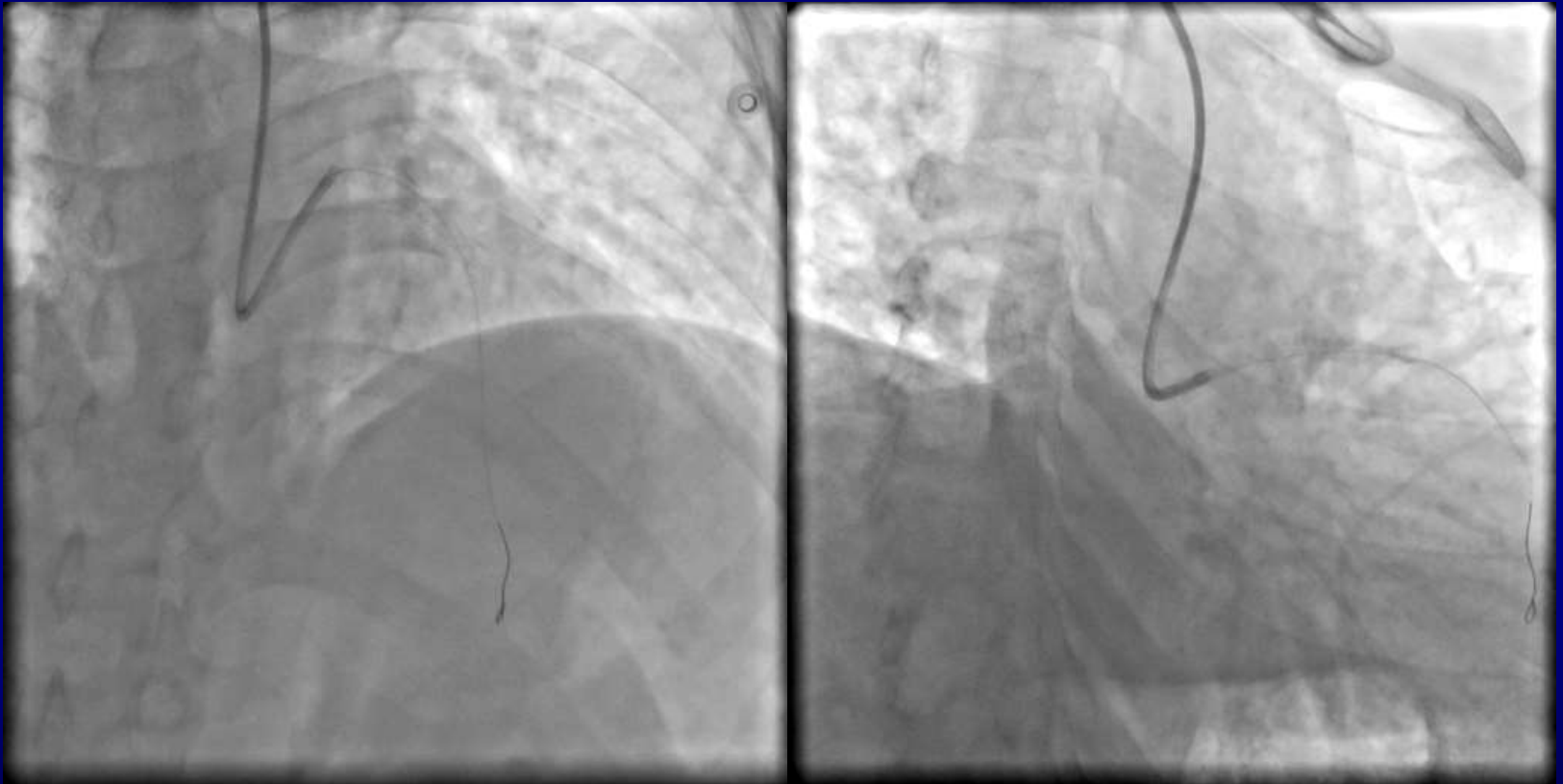
# 3.0x24 mm DES after Wire Exchange



# Post Stent Dye Held up With Flap in Prox LAD & LM

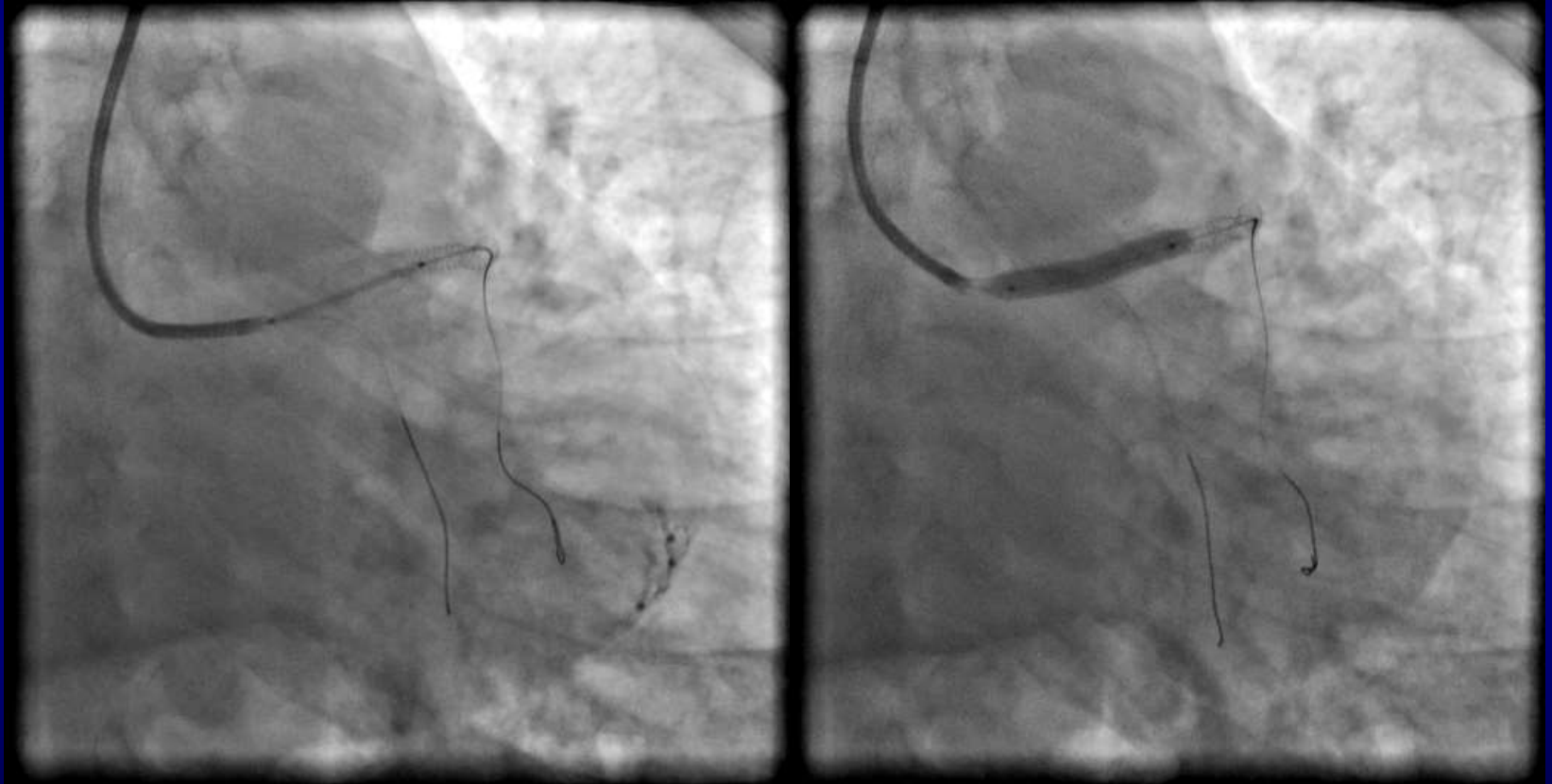


# Dissection of LM, LAD & Ramus





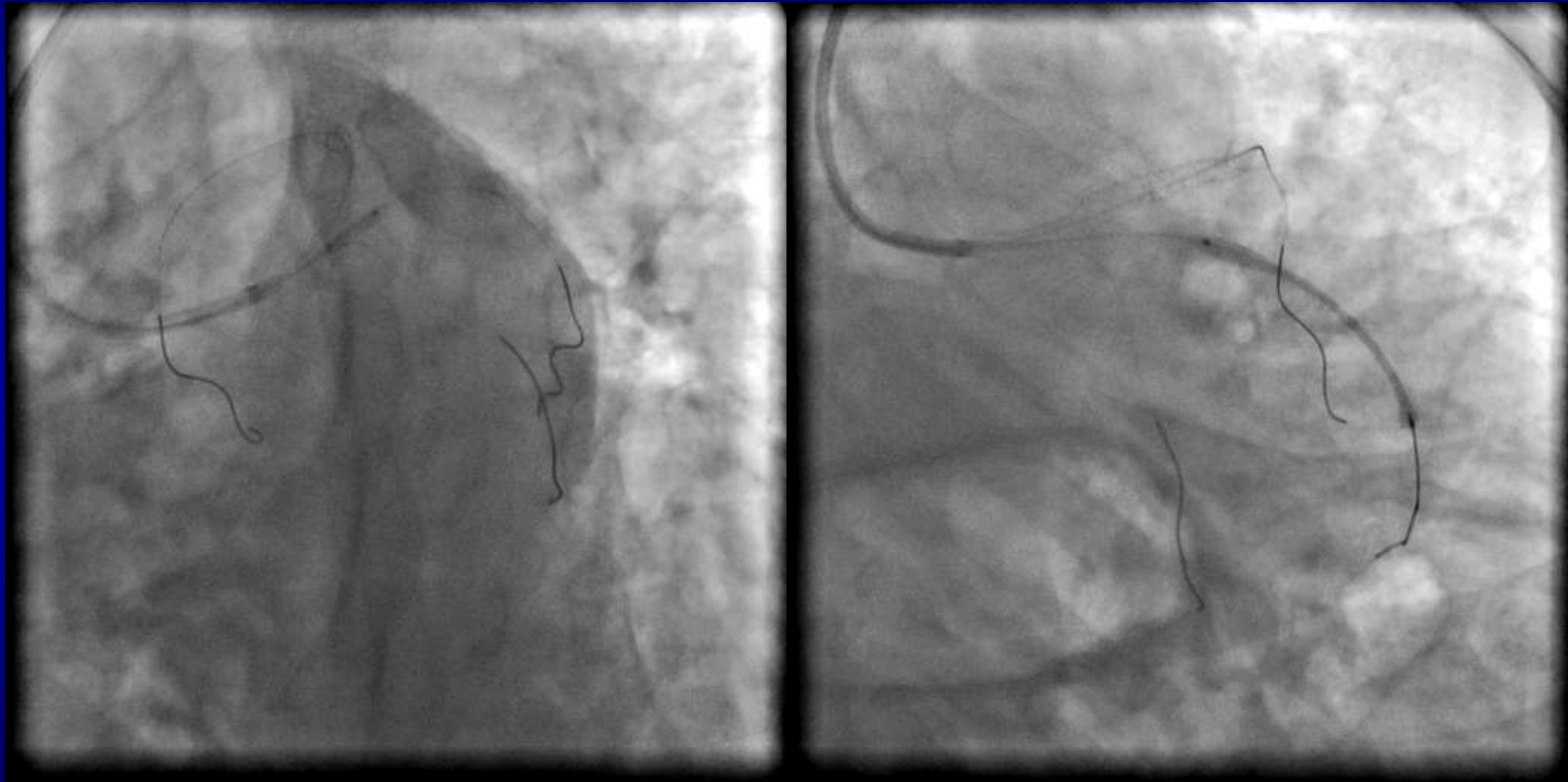
# **4x23 mm DES in LM Overlapping the LAD Stent**



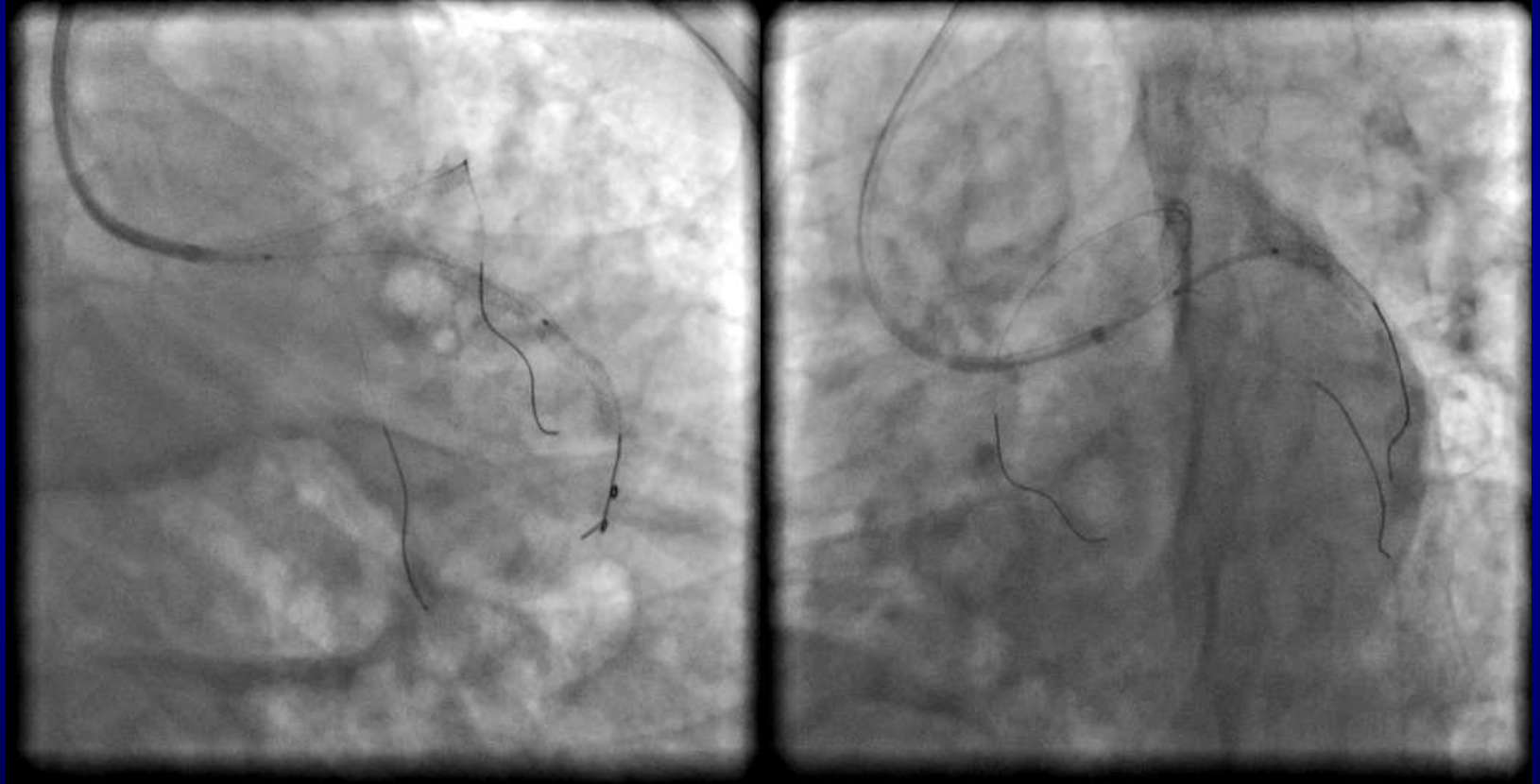
# Post LM Stenting



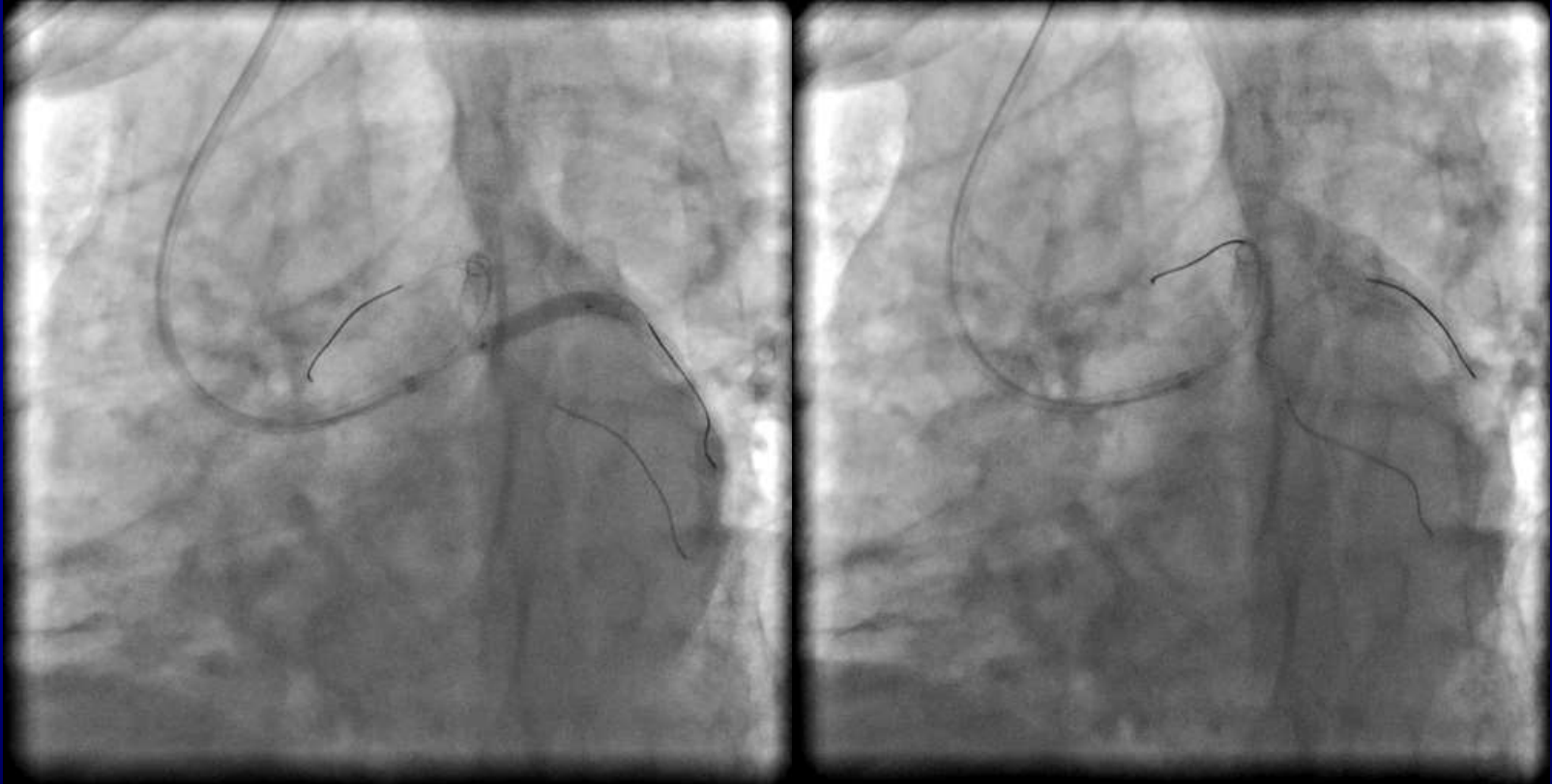
# **LM Stent Opened Towards Ramus & 3x38 mm DES Distally**



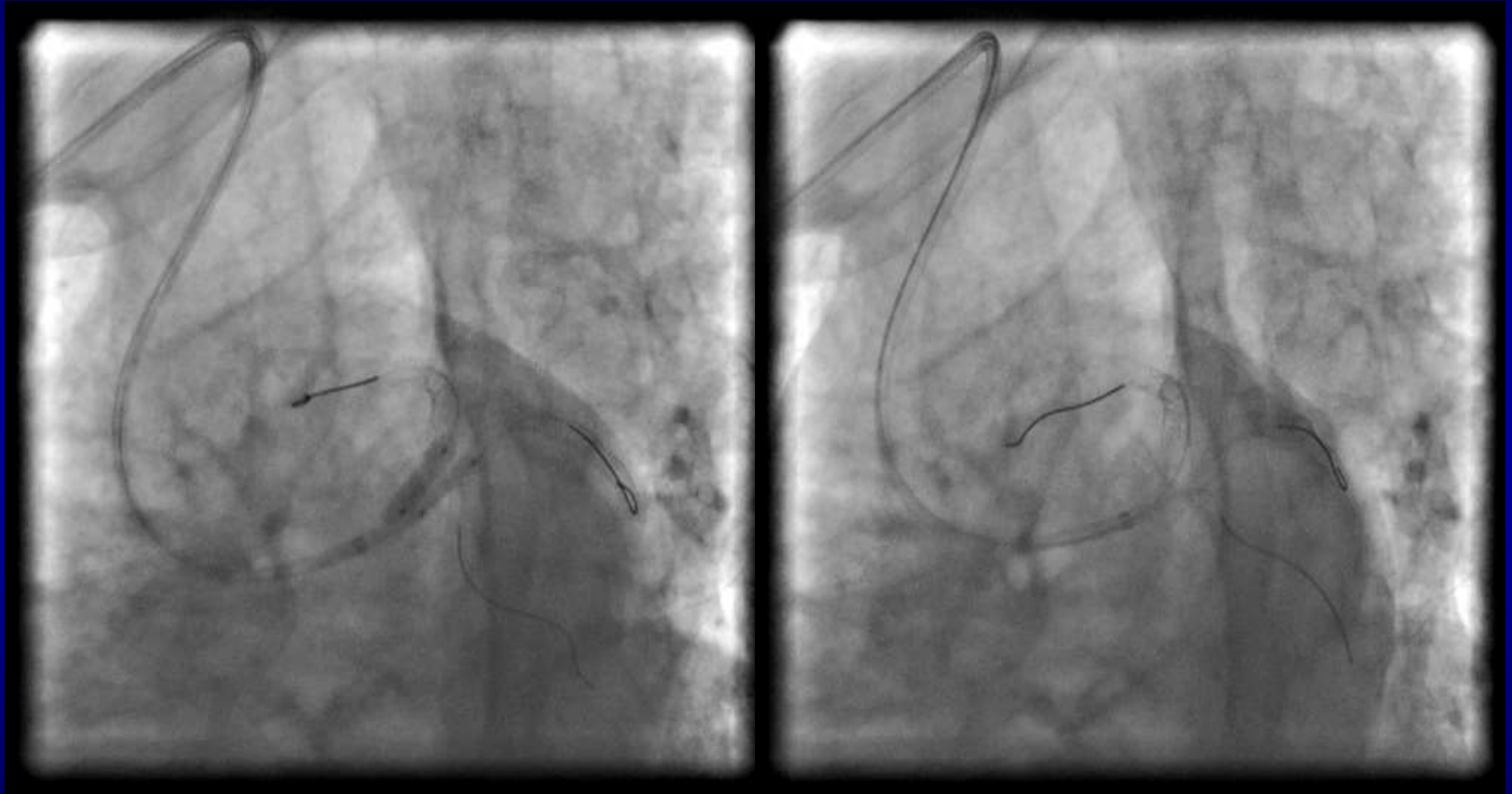
# **3x23 mm DES in Proximal Ramus with Slight Protrusion into LM**



# Post Stenting Ramus

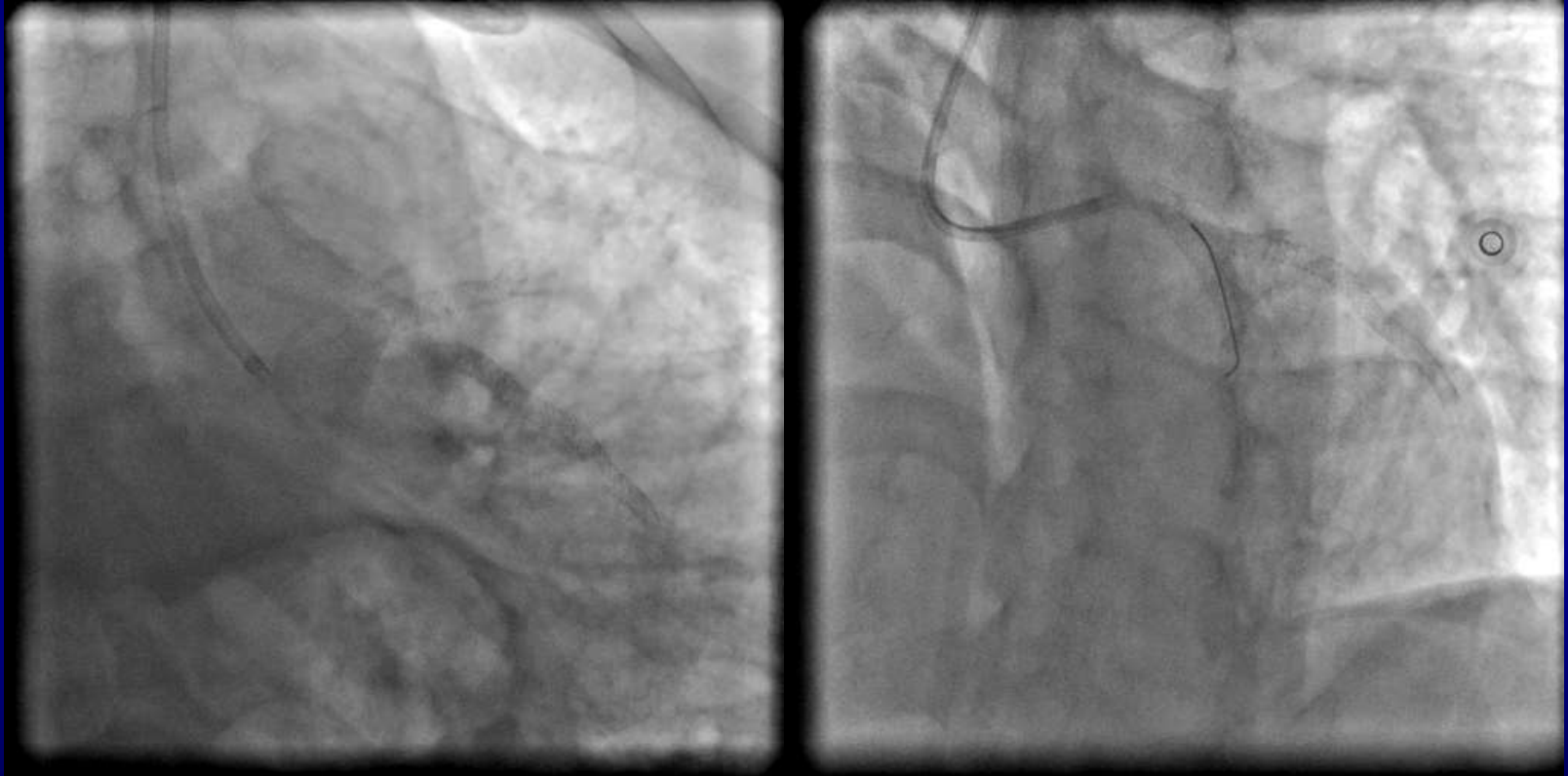


# KBT

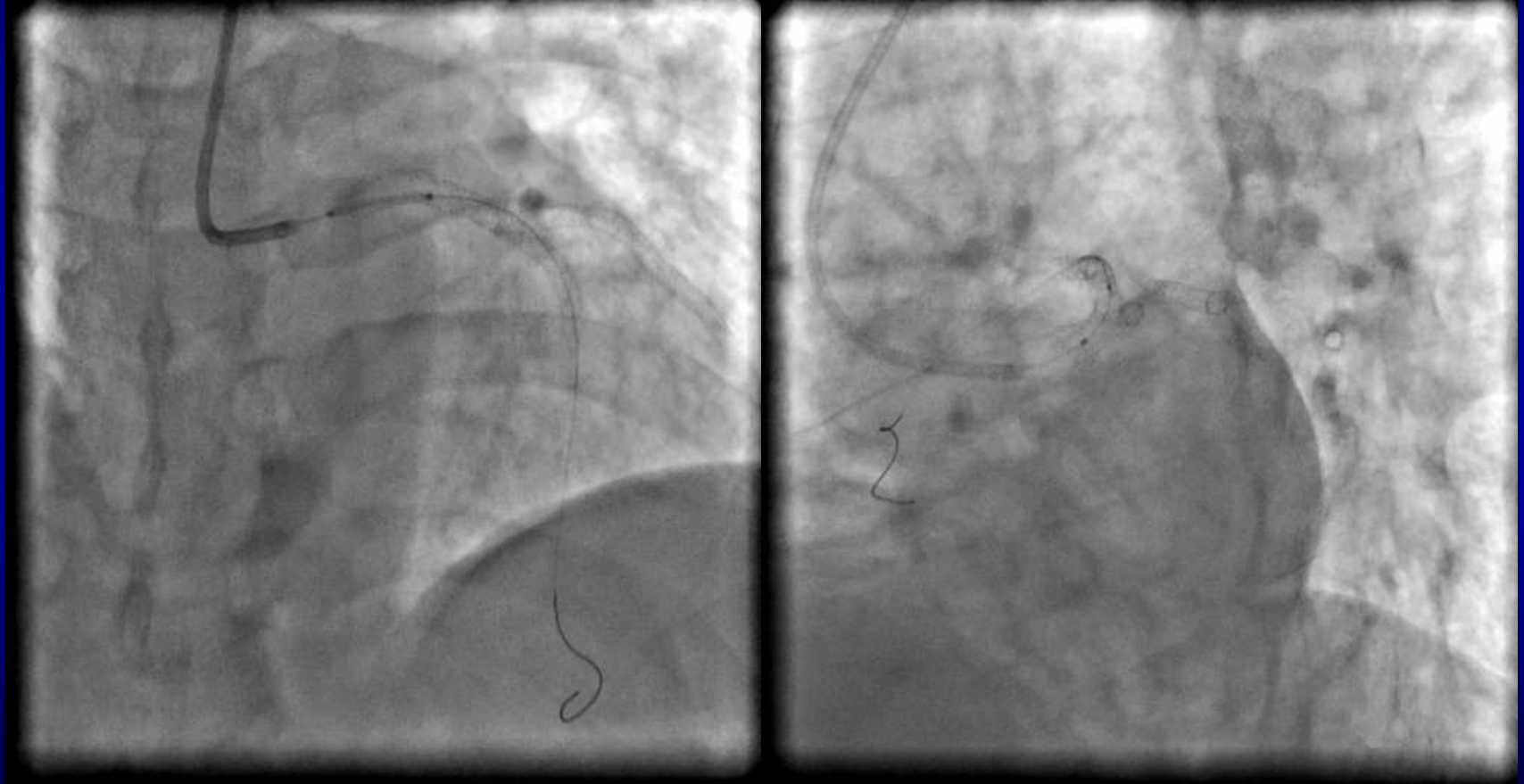




# LM Ostium: Leak

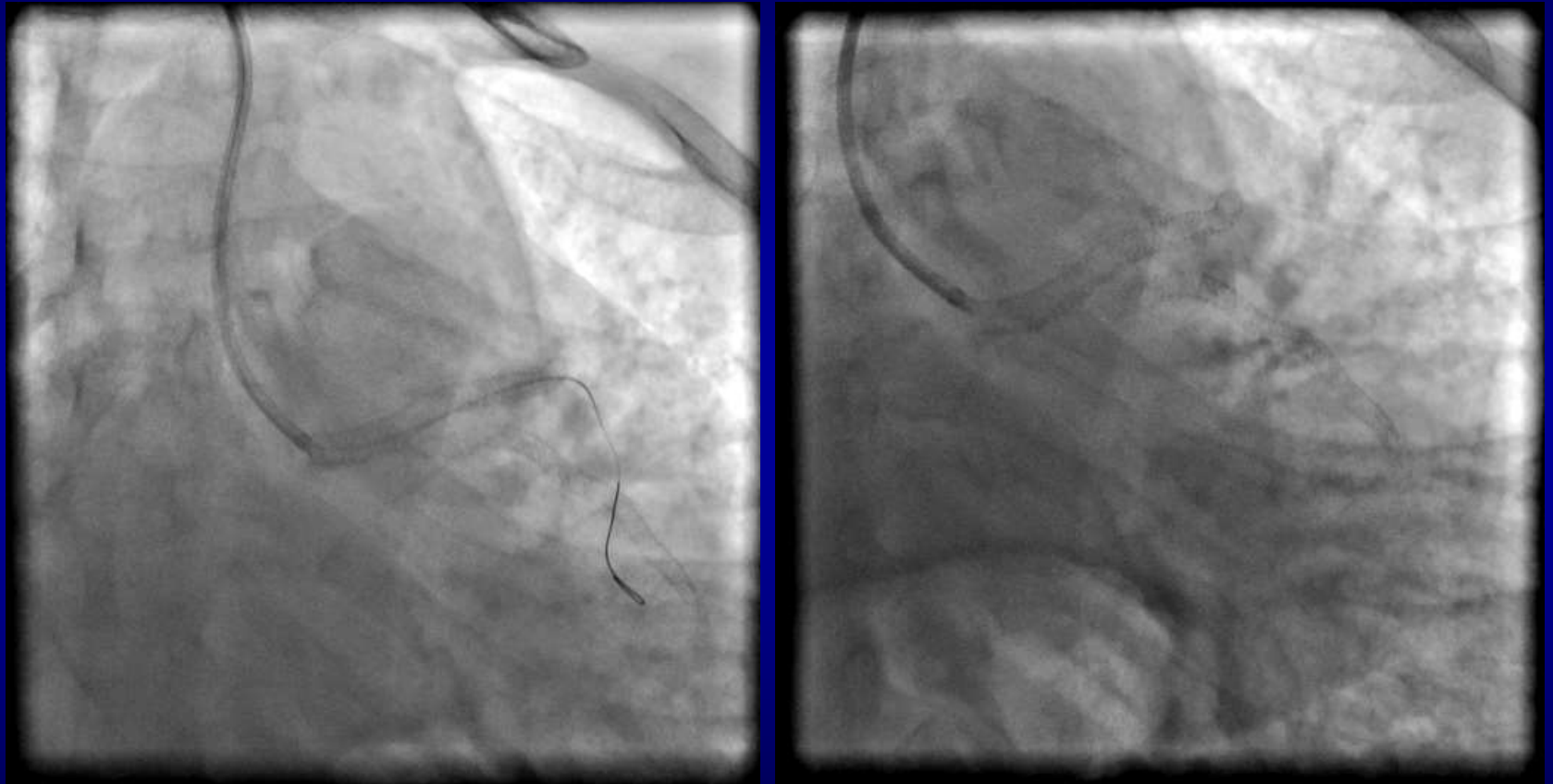


# 4x15 mm DES at Ostio- proximal LM

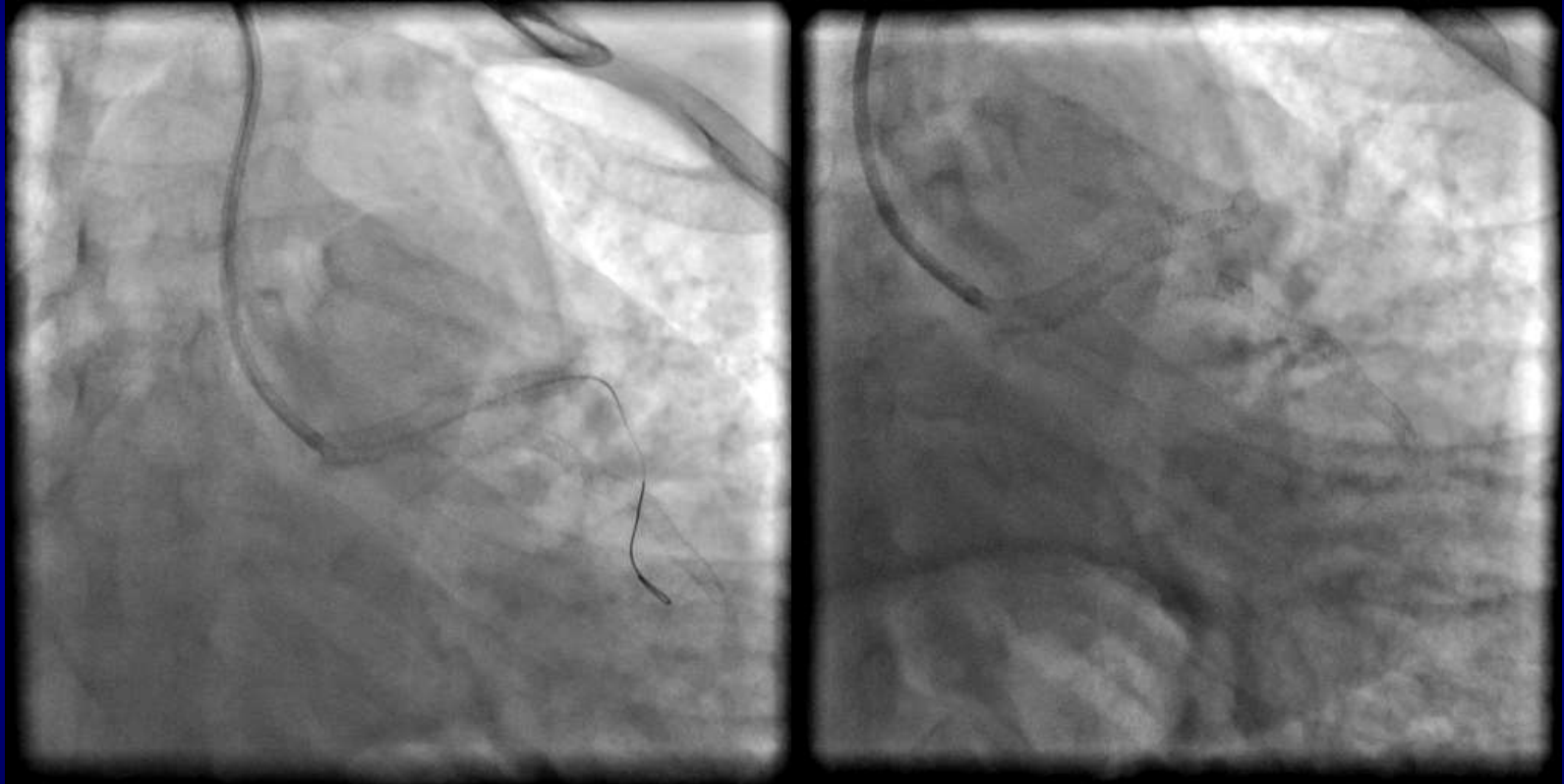




# Final Result



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# Aorto-coronary Dissection

- Incidence: 0.7%
- RCA>LCA
- Mechanism: Dye injection into wedged catheter

Shearing forces during systole & diastole

- Causes: Guide cath trauma, small RCA, extensive atherosclerosis, old age, HTN, recent MI

# Classification

Type 1 : Limited to ipsilateral coronary cusp

Type 2 : Cusps & prox ascending Ao (40mm)

Type 3 : Cusps to aortic arch ( $> 40$  mm )

# Management of Type 1 & 2 Dissection

- Minimize contrast injection
- Stent intracoronary entry point dissection
  - : Conventional stent
  - : Covered stent
- Assess progression : TEE, MSCT

# Type 3 Dissection

Surgical Intervention

# Take Home Message

- Aortic dissection is a rare and challenging complication
- Attention to prevention, recognition, & treatment of these complications is critical to performance of safe PCI.
- Prevention is first priority as it better to stay out rather than to get out of it.

**THANK YOU FOR YOUR KIND ATTENTION**