TRI for Complex Lesion

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E-SIRIUS: Success Measures

	Sirolimus (n = 171)	Control (n = 172)
• Device Success	171 (**100%**)	171 (**99.4%**)
• Lesion Success	171 (**100%**)	172 (**100%**)
• Procedure Success	167 (**97.7%**)	169 (**98.3%**)
• Major Bleeding	6 (**3.4%**)	4 (**2.3%**)
• Major Vasc. Compl.	4 (**2.3%**)	4 (**2.3%**)

OCTOPLUS:
Primary endpoint, Intention to treat analysis

	Femoral	Radial	p value
n=	185	192	
Vasc. Surgery (%)	0	0.5	ns
Transfusion (%)	1.6	1.0	ns
Hb drop > 3g/DL (%)	3.8	0.5	0.063
False aneurysm compression (%)	1.1	0.5	ns
Arm or leg ischemia (%)	0	0	ns
Forearm compartment syndrom (%)	0	0	ns
Large hematoma* (%)	6.5	1.6	0.031
COMPOSITE END-POINT $ (%)	**6.5**	**1.6**	**0.029**
Hematoma (%)	11.4	3.5	0.003
CVA (%)	0.6	0	ns

$ surgery, transfusion, Hb loss>3g/100ml-Ht loss>10%, ischemia, FA, vasc. Complic. leading to discharge delay *Large hematoma: discharge delay

Transradial vs. transfemoral approach in primary stent implantation for patients with acute myocardial infarction: TEMPURA trial

149 pts with AMI ≤ 12 hr, randomized into 2 groups

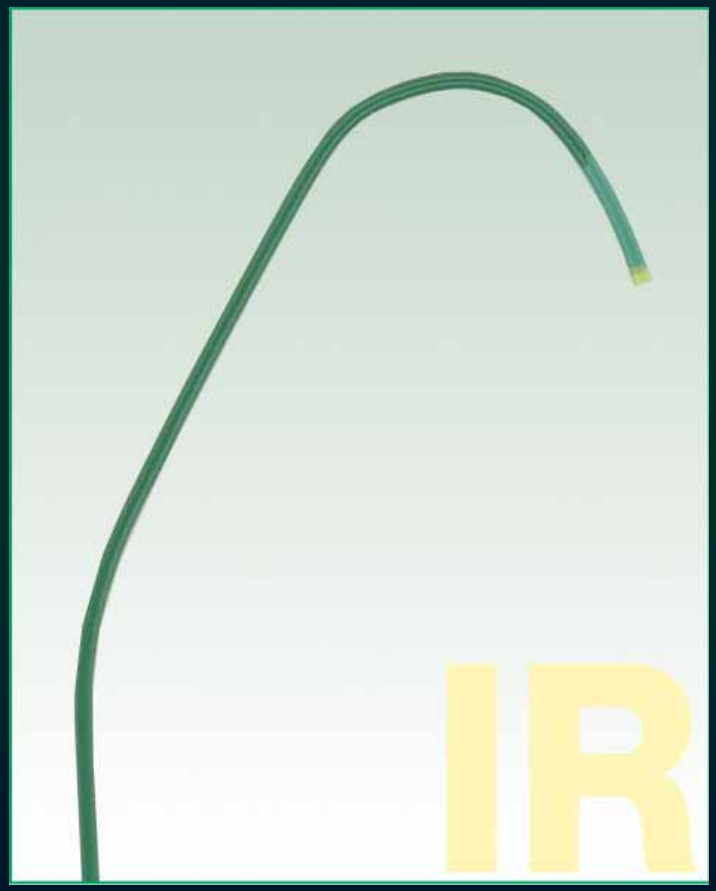
	TRI	TFI
N=	77	72
Cross over (n)	1	0
Severe bleeding complication (n)	0	2
Success of reperfusion (%)	96.1	97.1
in-hospital MACE (%)	5.2	8.3

Saito CCVI 2003; 59(1):26-33

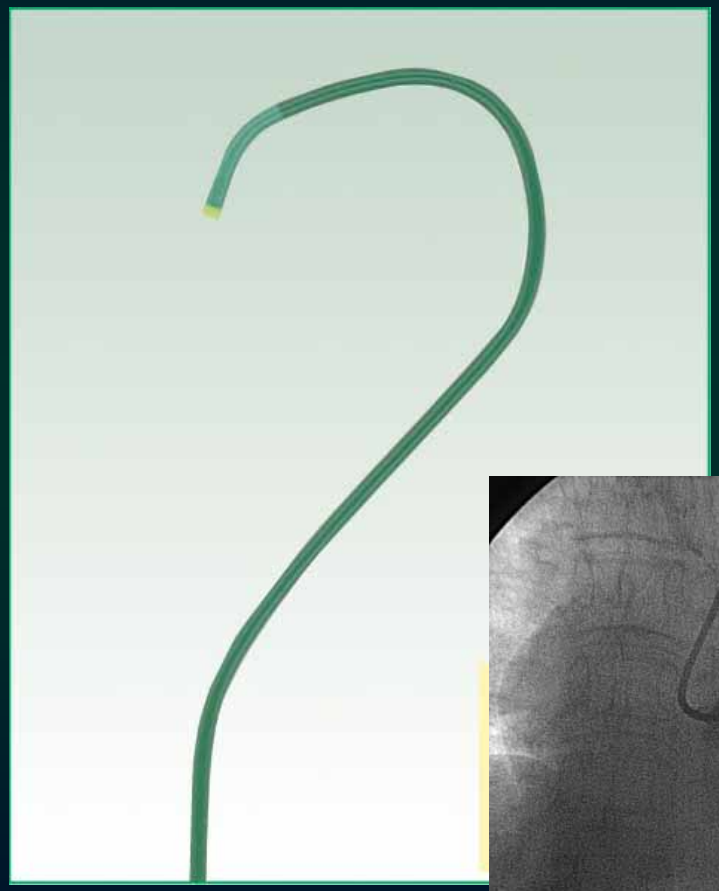
Common Technique (Guiding Catheter)

- Select of Guiding Catheter
  - Long tips, Amplatz type
  - IKARI type
  - Down sizing (to 5F)
- Deep-engage of Guiding Catheter
  - with GW/Balloon support
    - with/without Anchoring technique

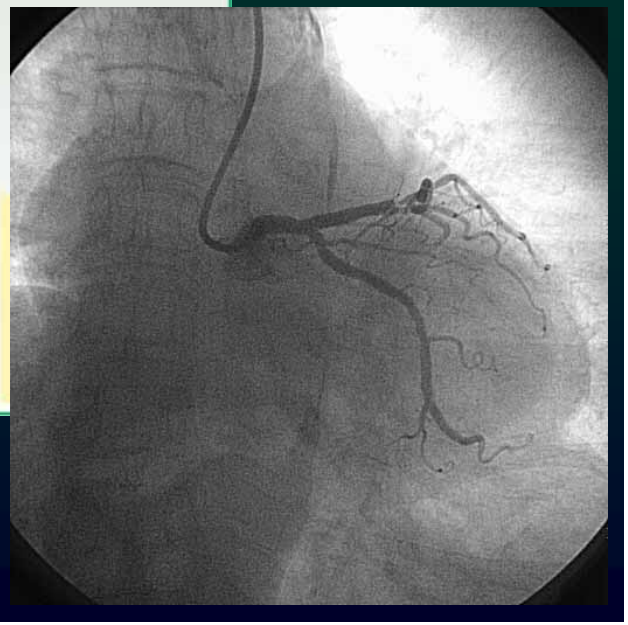
IKARI guide catheters



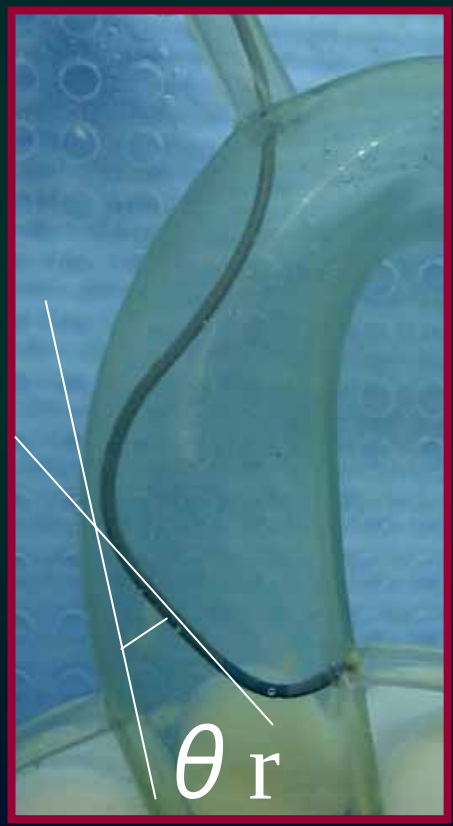
Ikari R (IR) 1.5

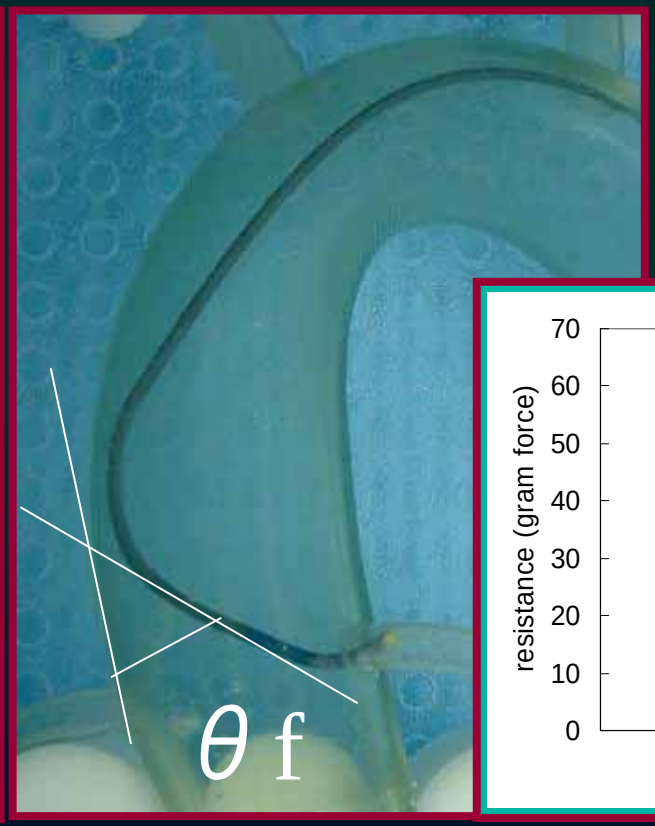


Ikari L (IL) 4

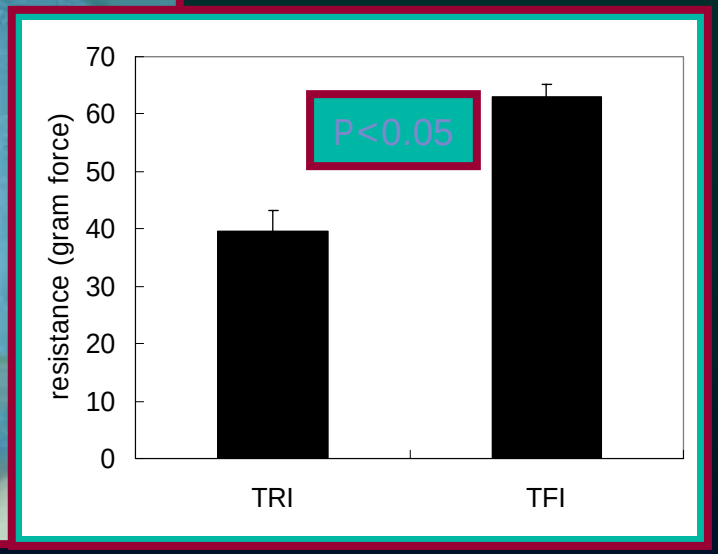


Judkins L : TFI vs TRI

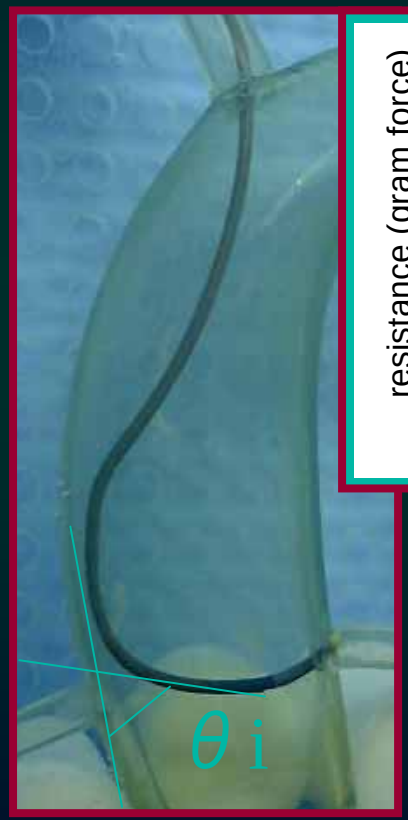


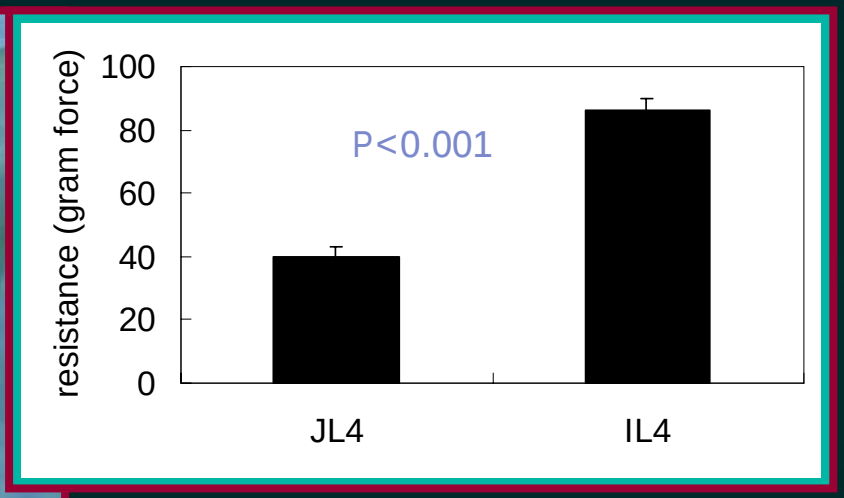


$$Fmax = \frac{\lambda}{\cos\theta}$$



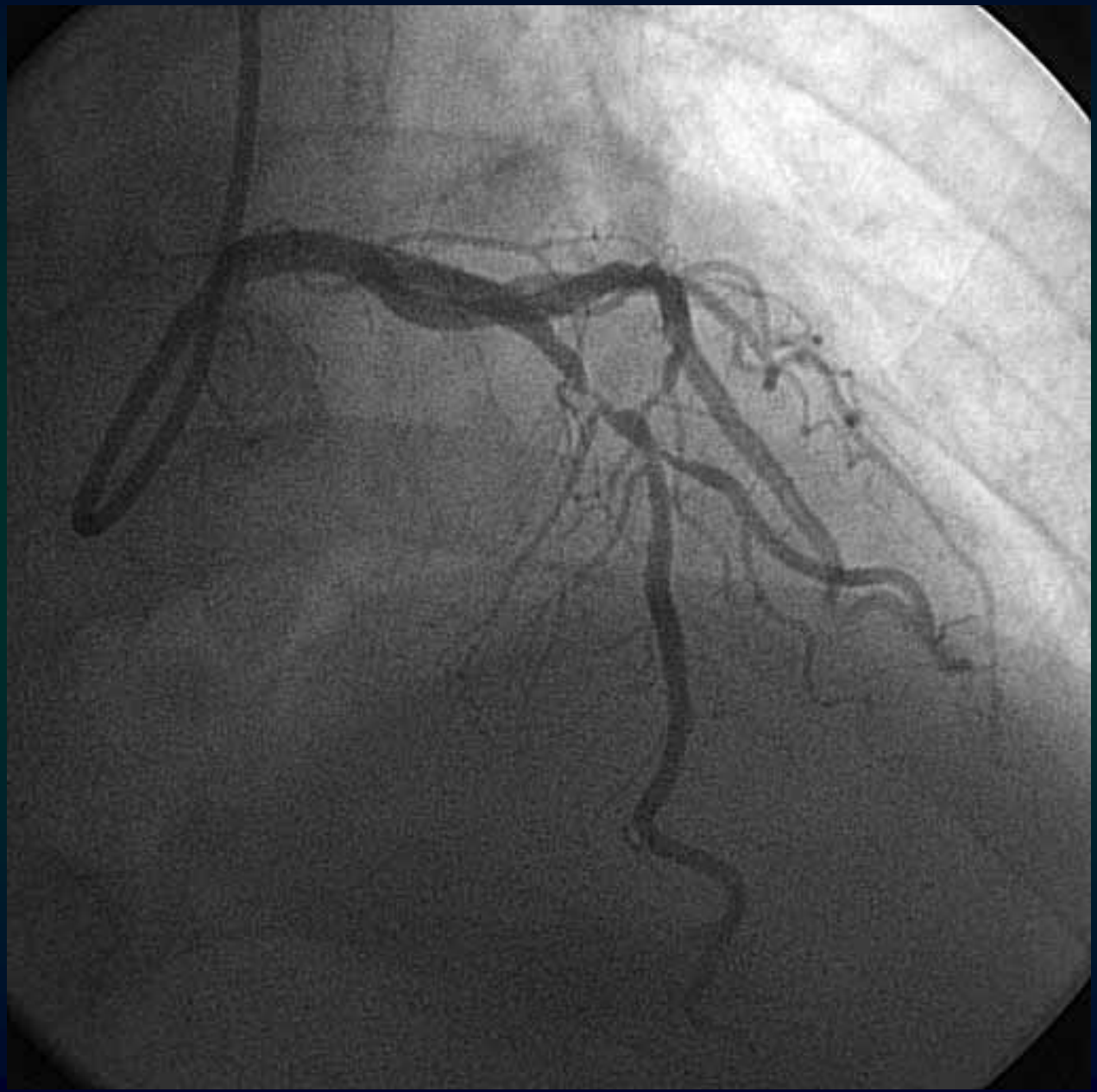
Ikari vs Judkins L





$$Fmax = \frac{\lambda}{\cos\theta}$$

IKARI



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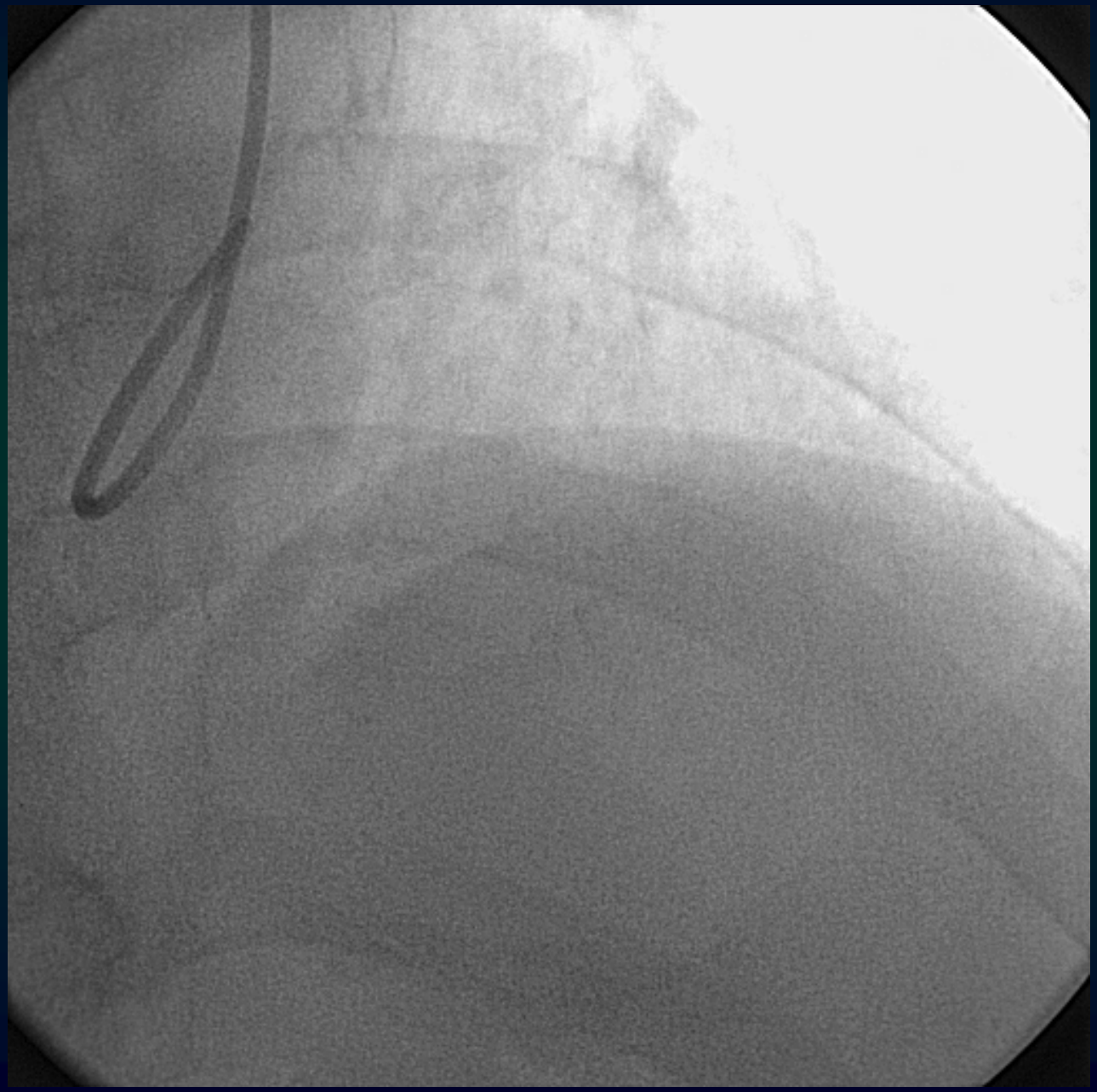

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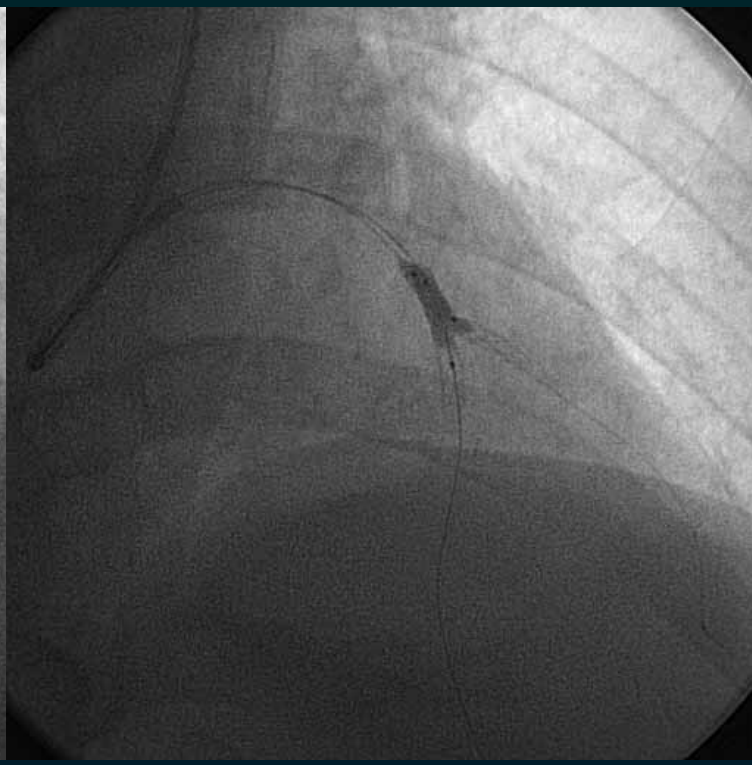

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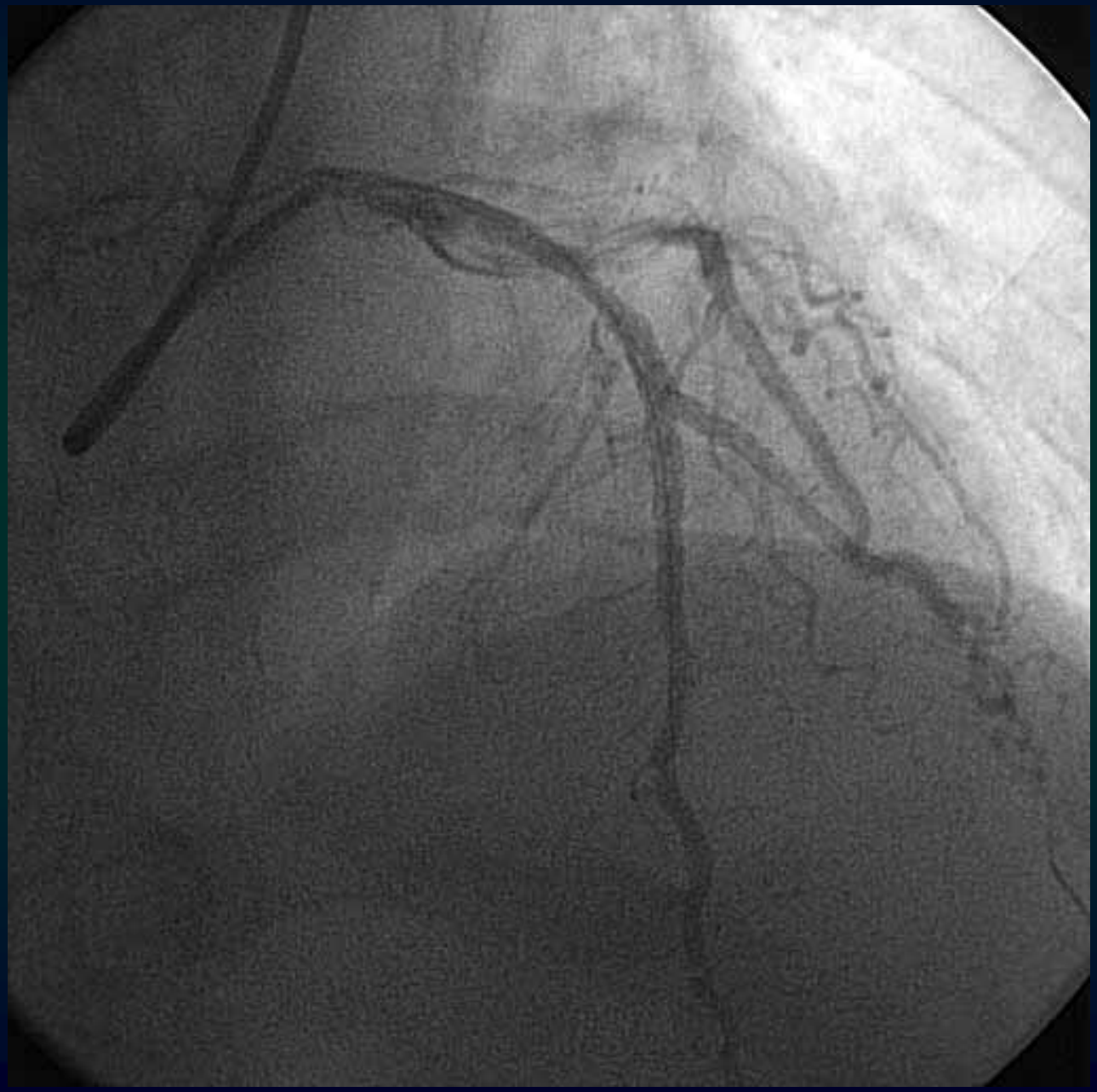

IKARI

5F IKARI

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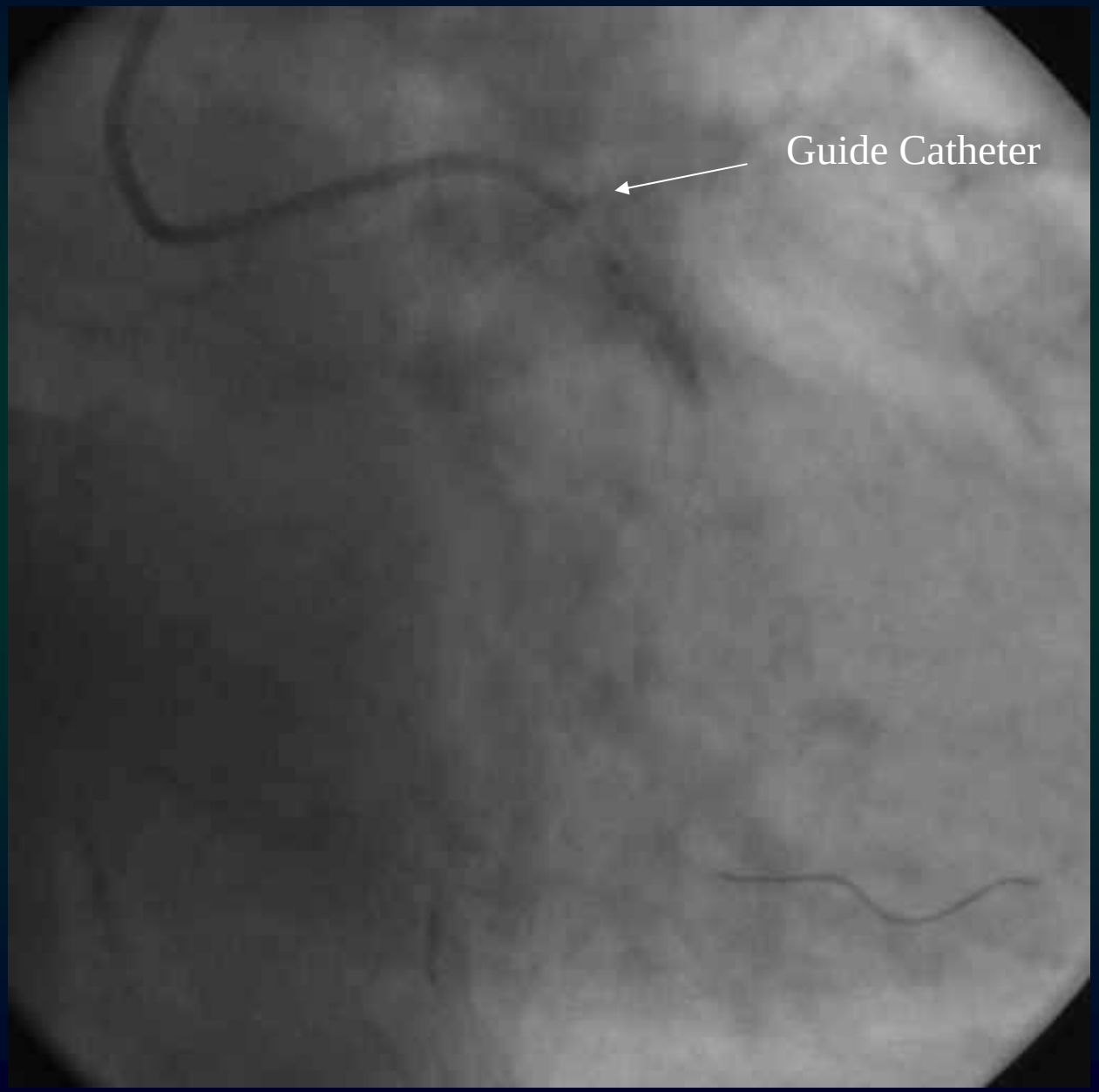
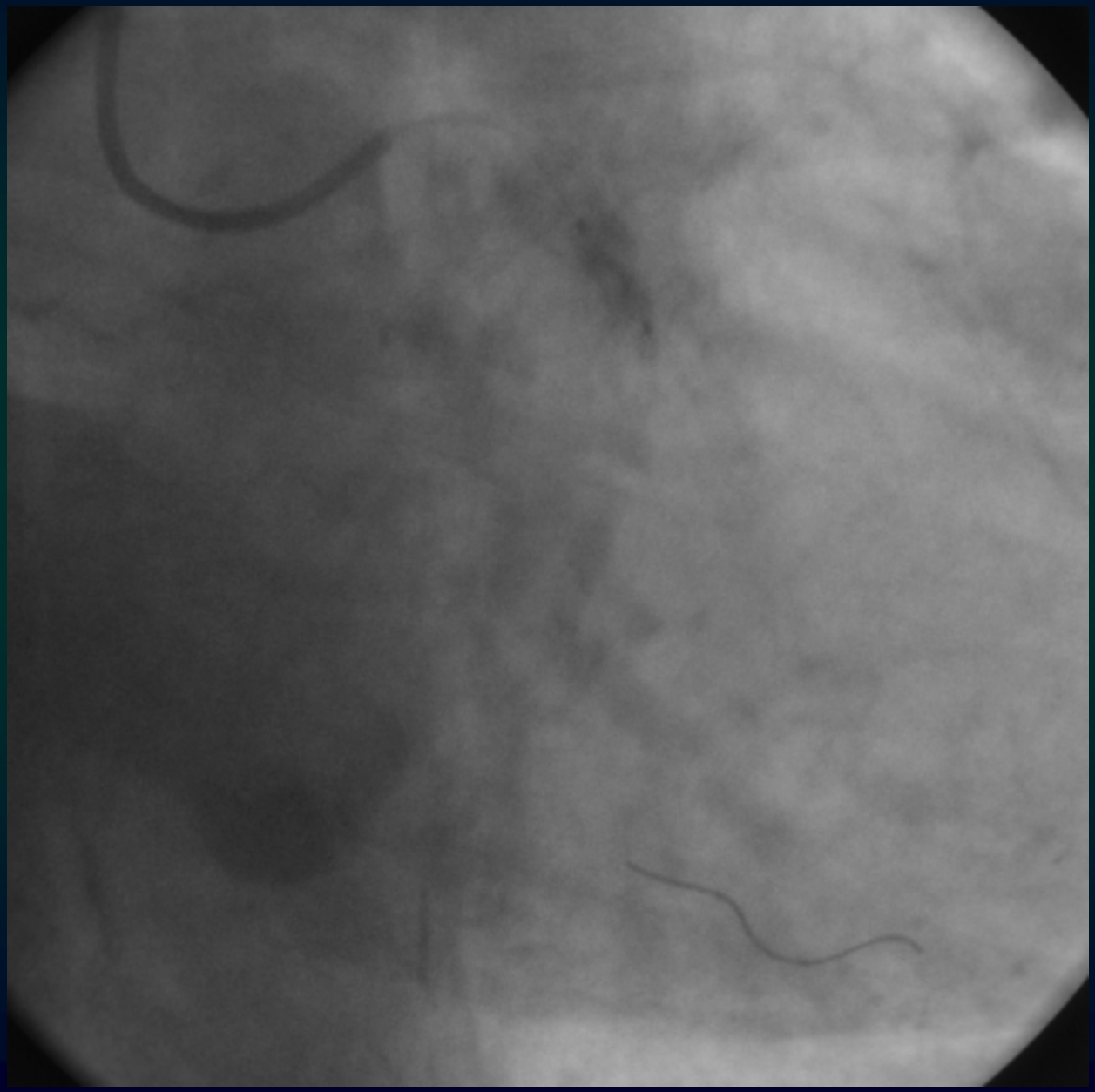
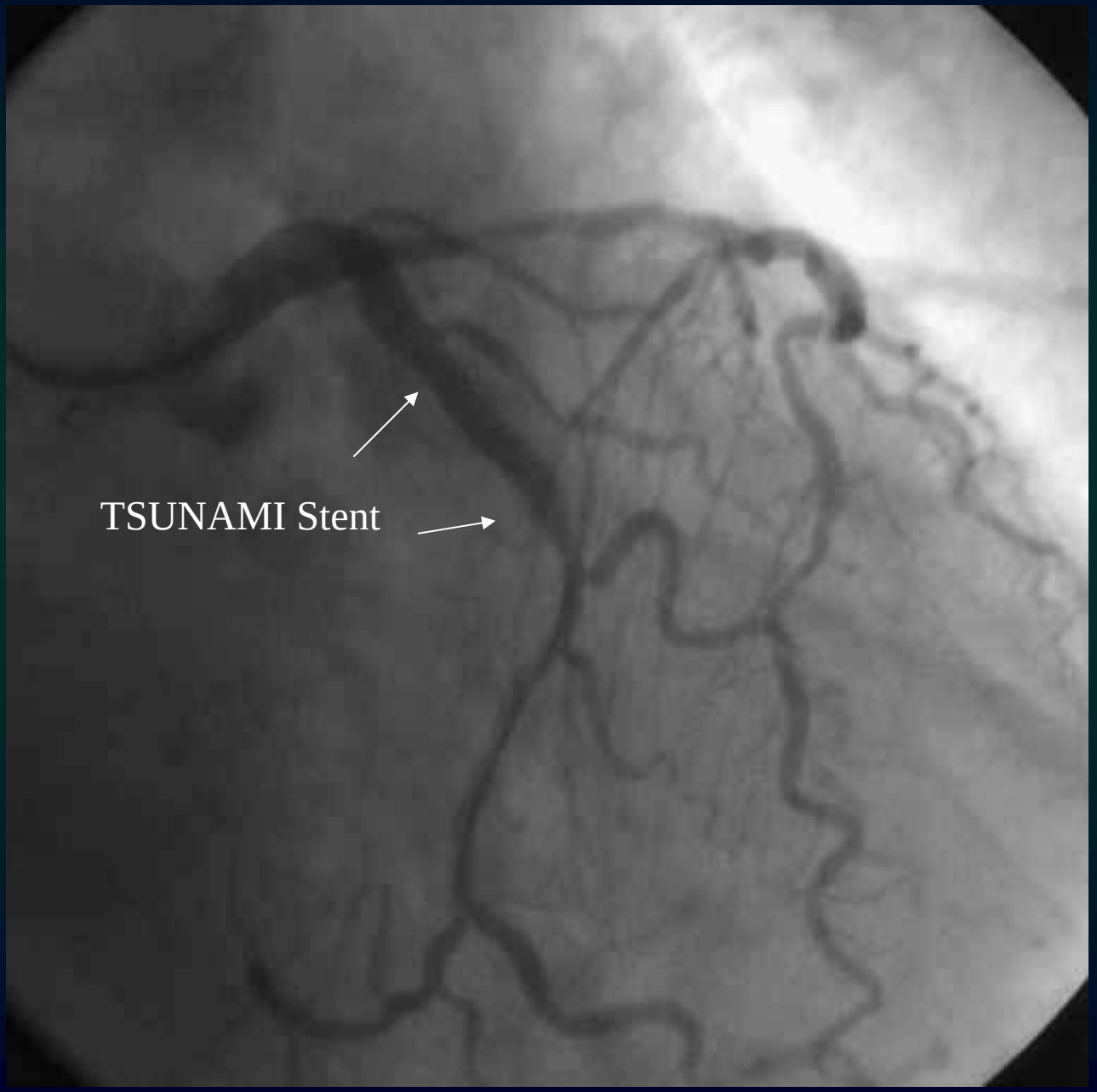


5F IKARI



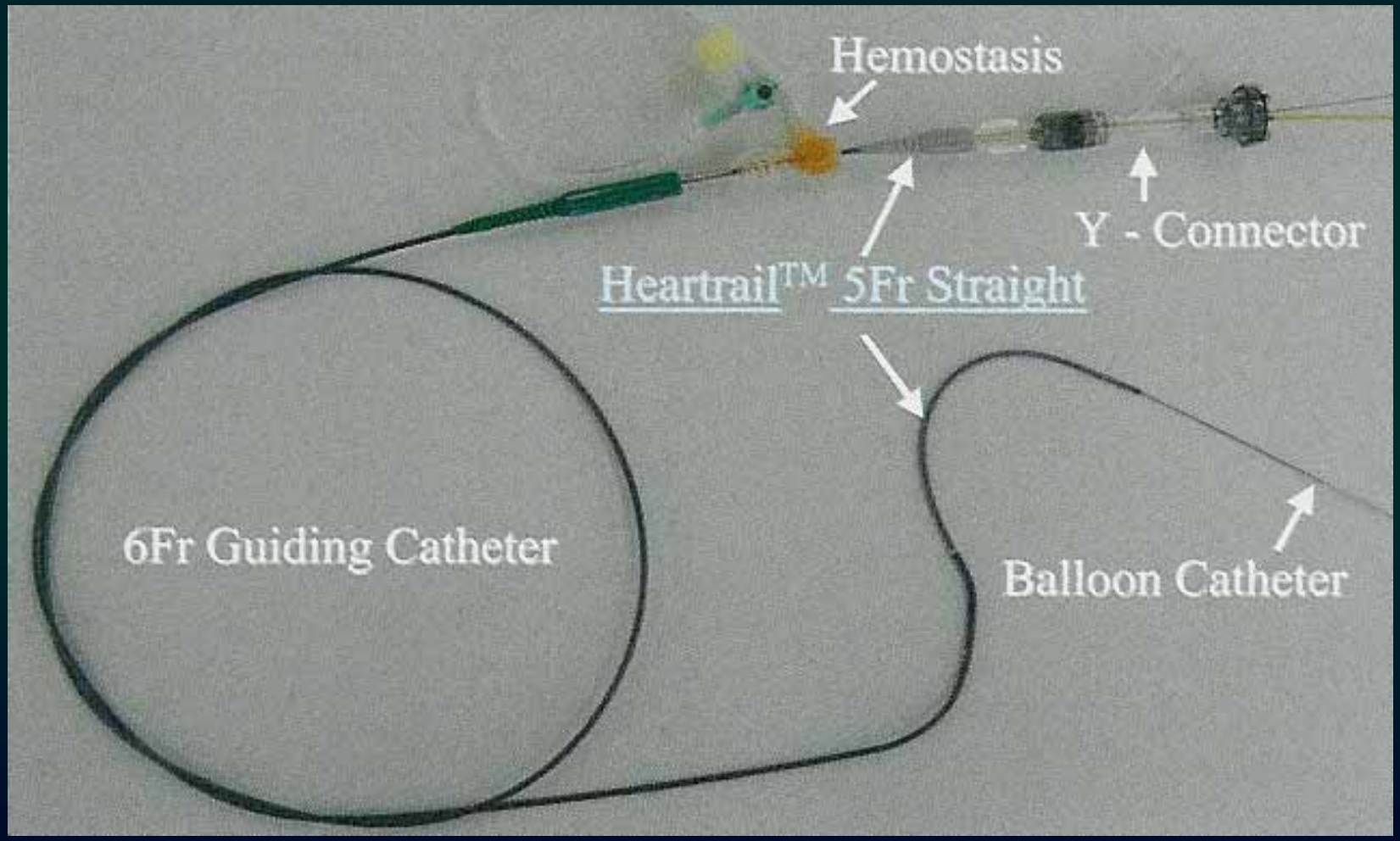
5F IKARI



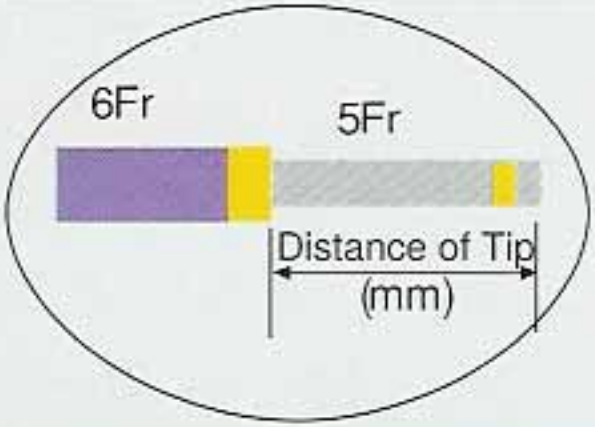
5F IKARI

5 in 6F system

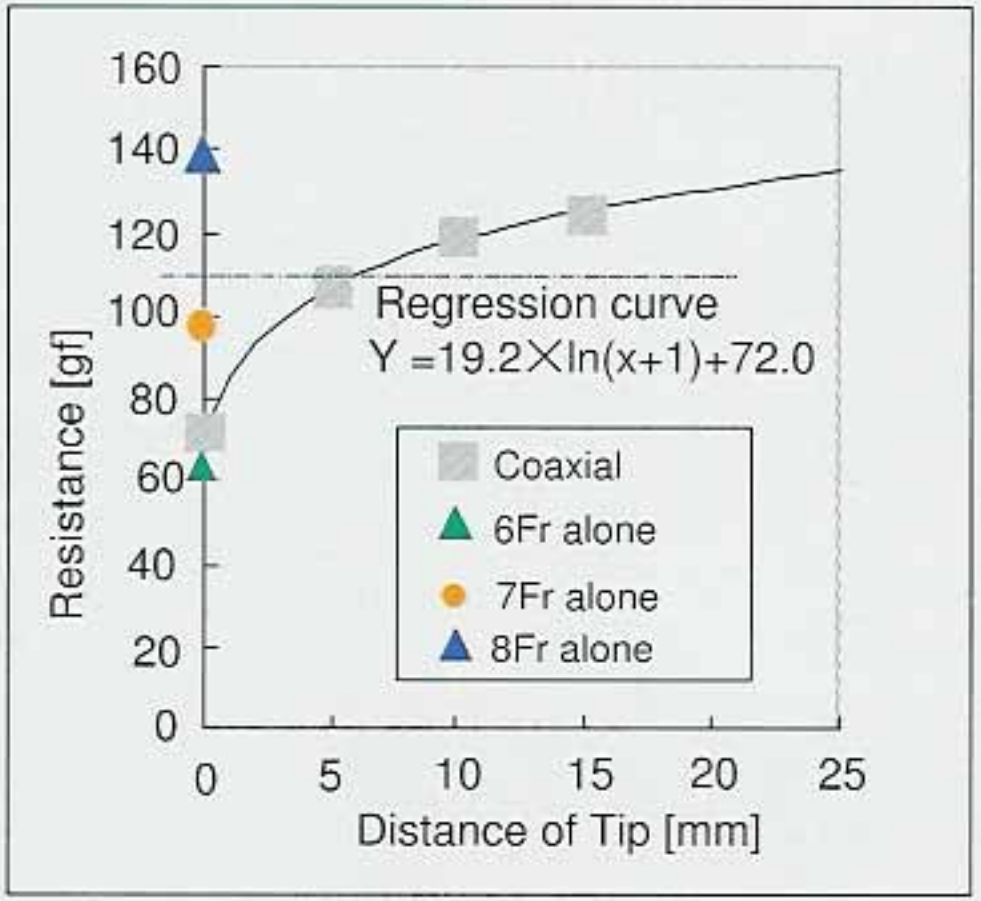
5 in 6 system is expected to create stronger backup support to get successful interventions



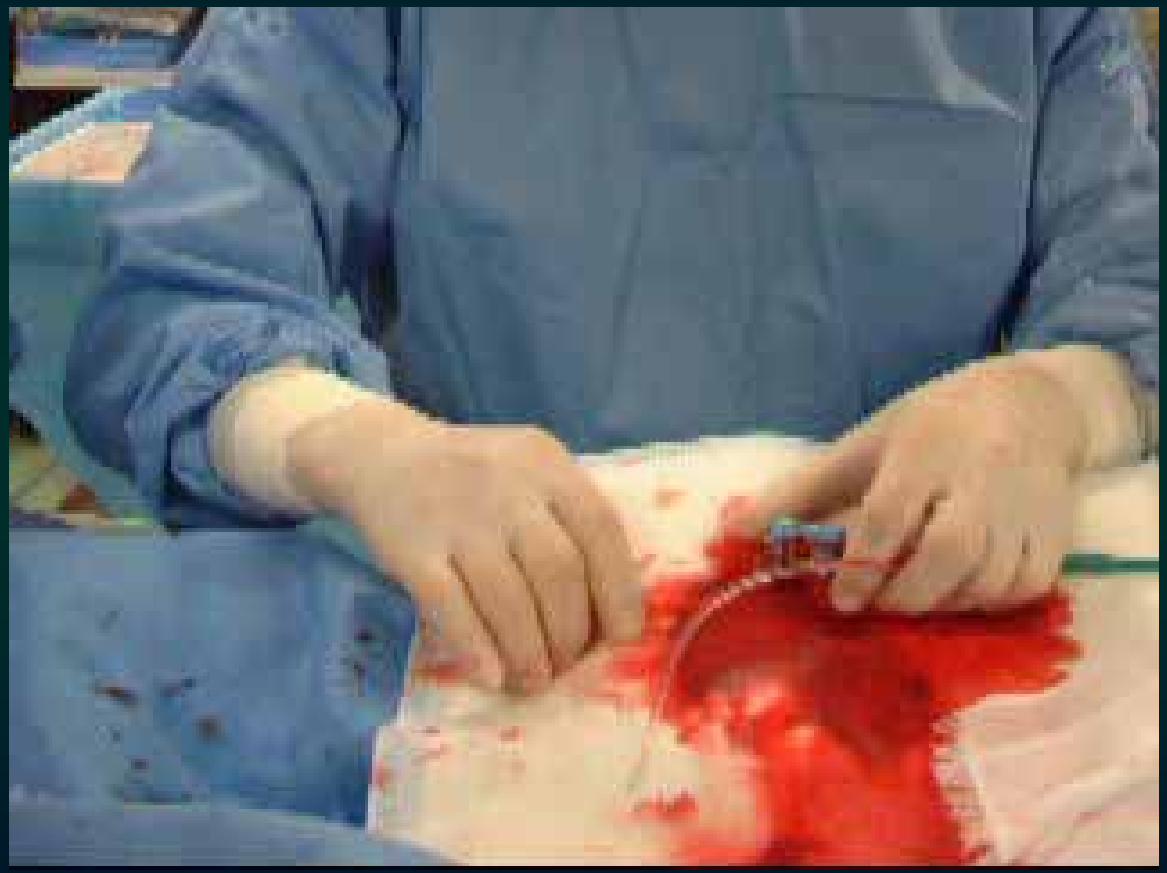
In-vitro measurements of Guiding backup support



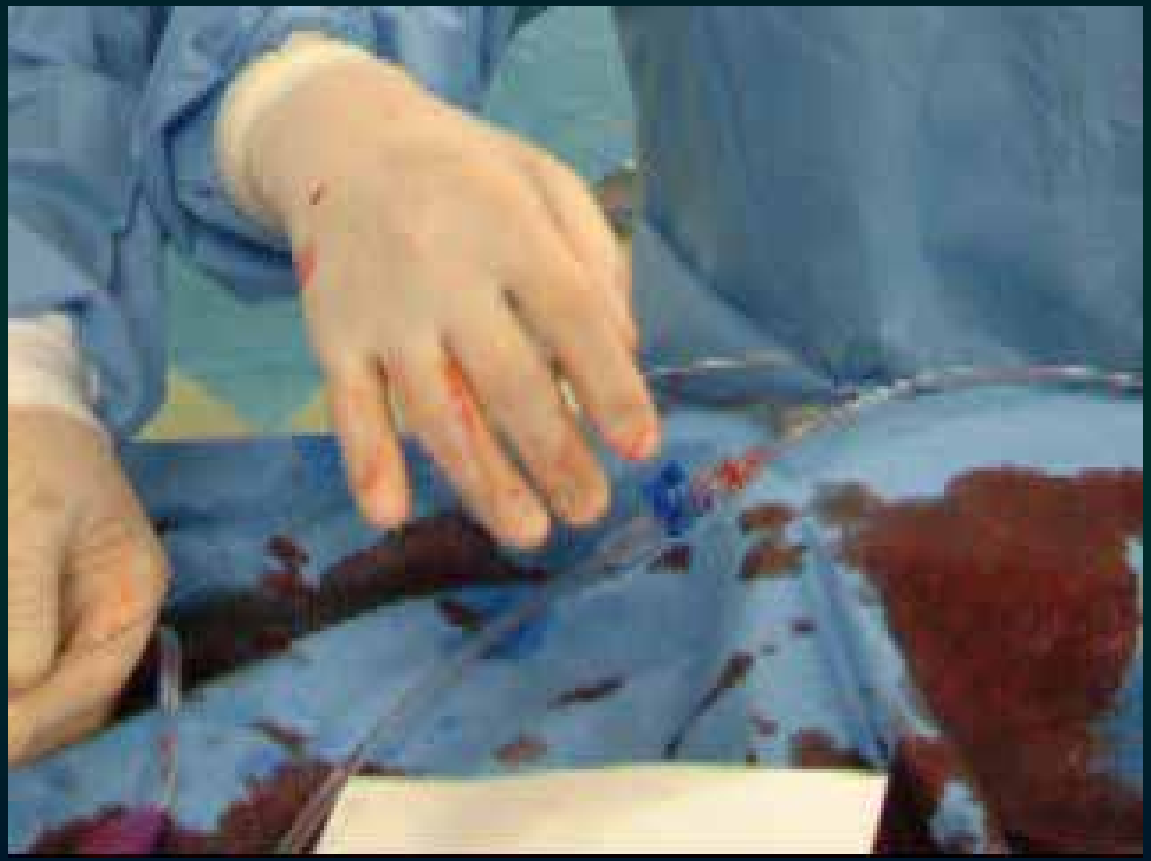
Distance of Tip [mm]	Resistance[gf]
0	72.0
5	106.5
10	118.5
15	124.5



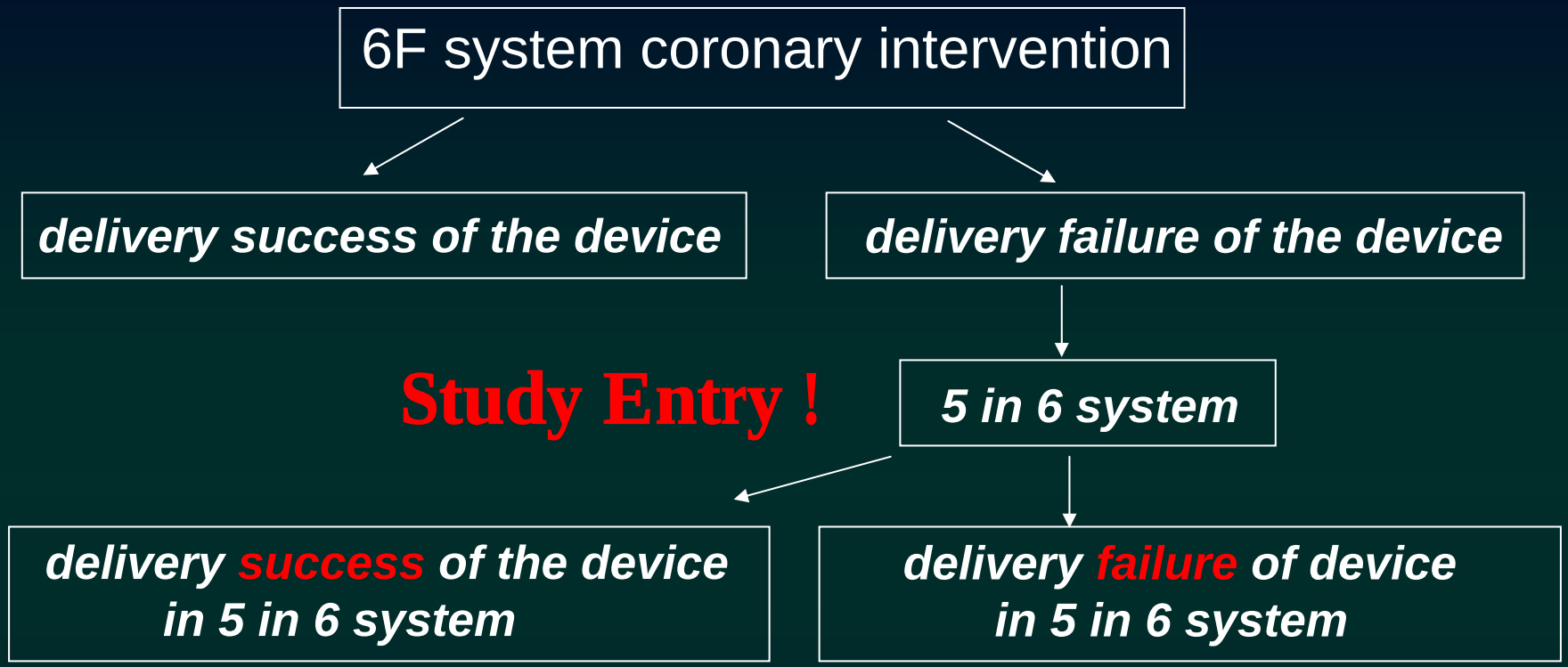
5 in 6F system



5 in 6F system



5 in 6 study in Japan

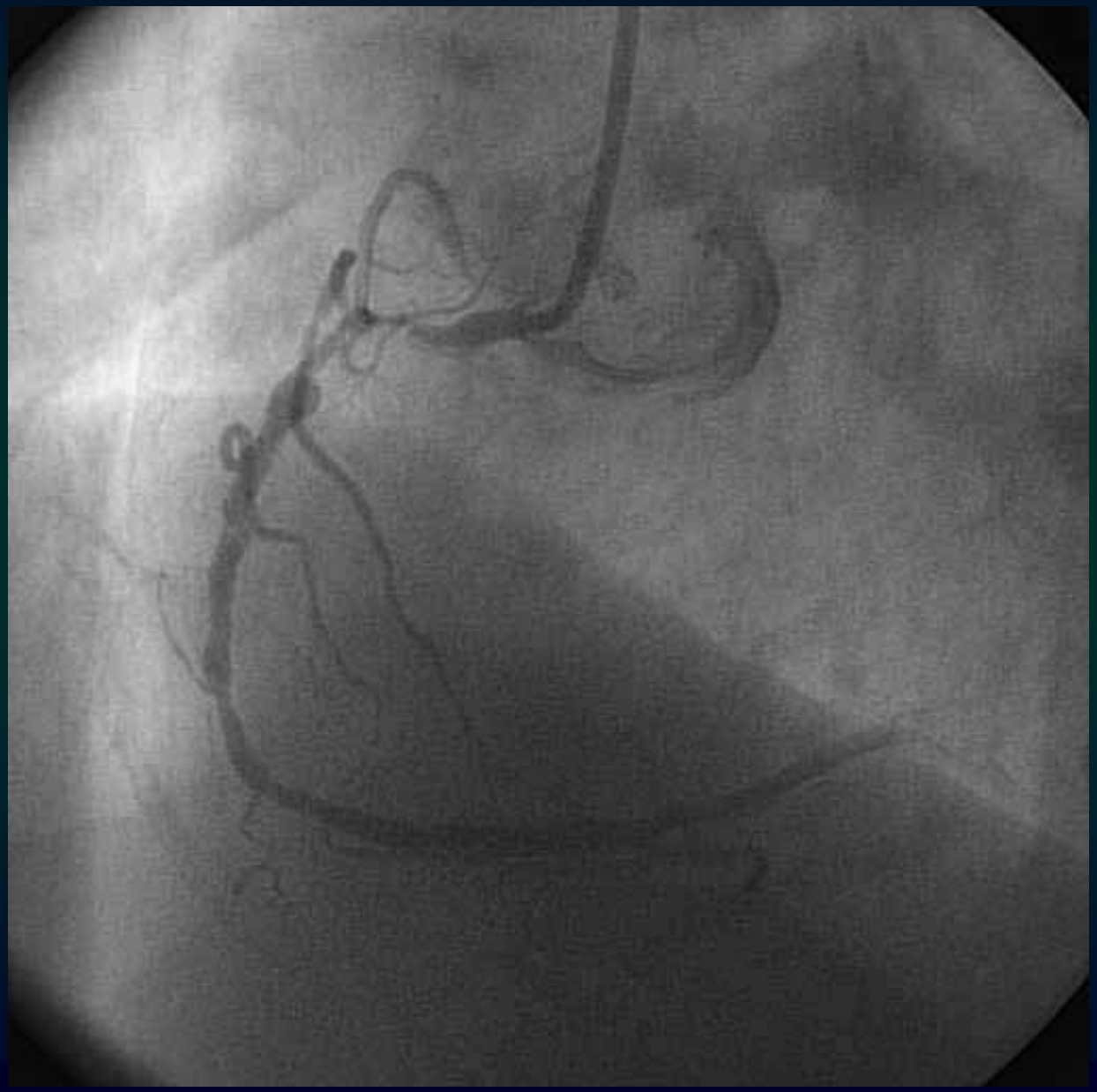


- N 48
- Delivery Success Rate of 5 in 6 system
  - 87.5% (42/48)
- Success Rate of the interventions
  - 83.3%(40/48)

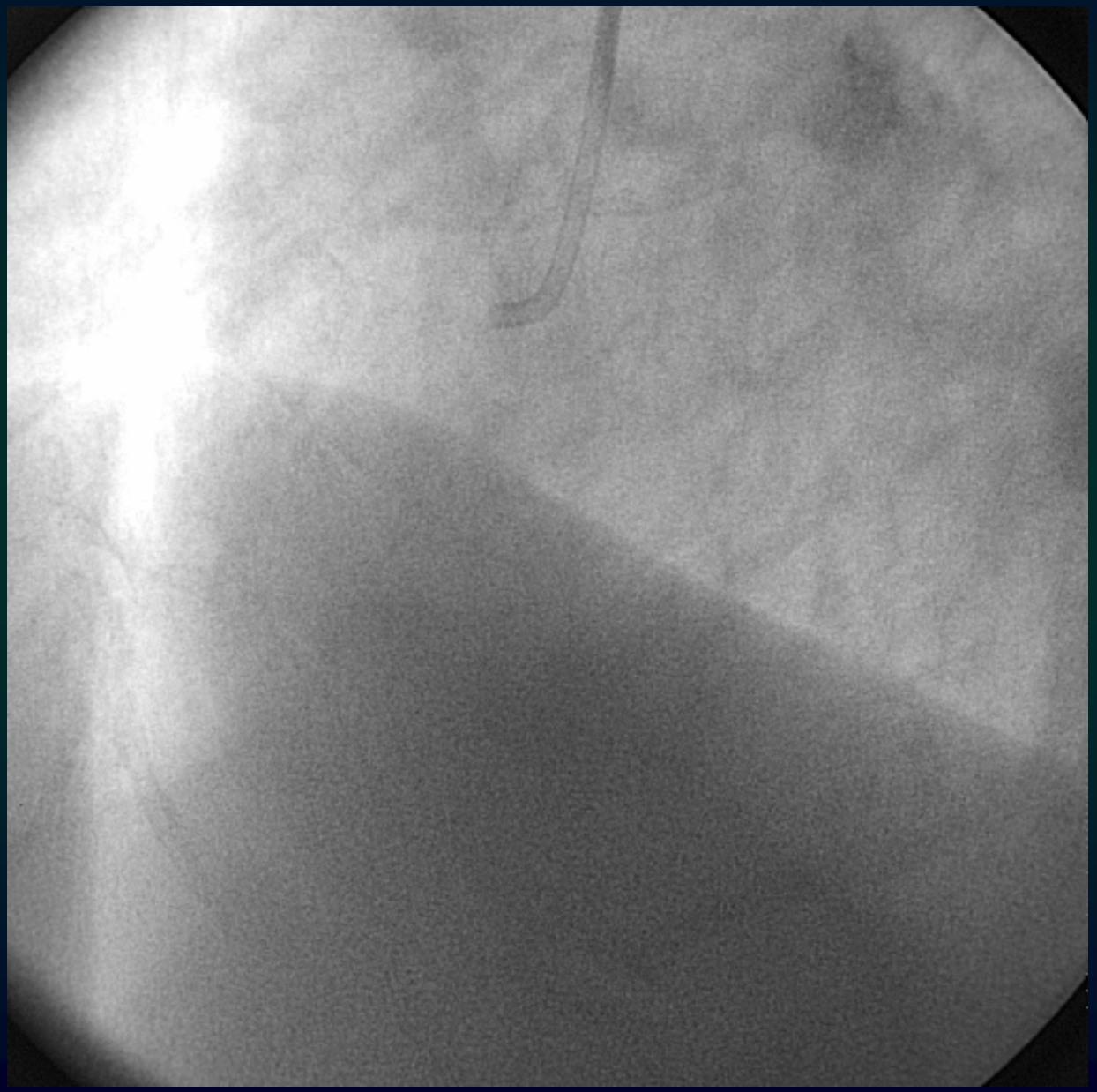
5 in 6F

- Help more powerful backup for guiding catheter
- Caution !
  - Careful of air shot
  - Pressure monitor not visible

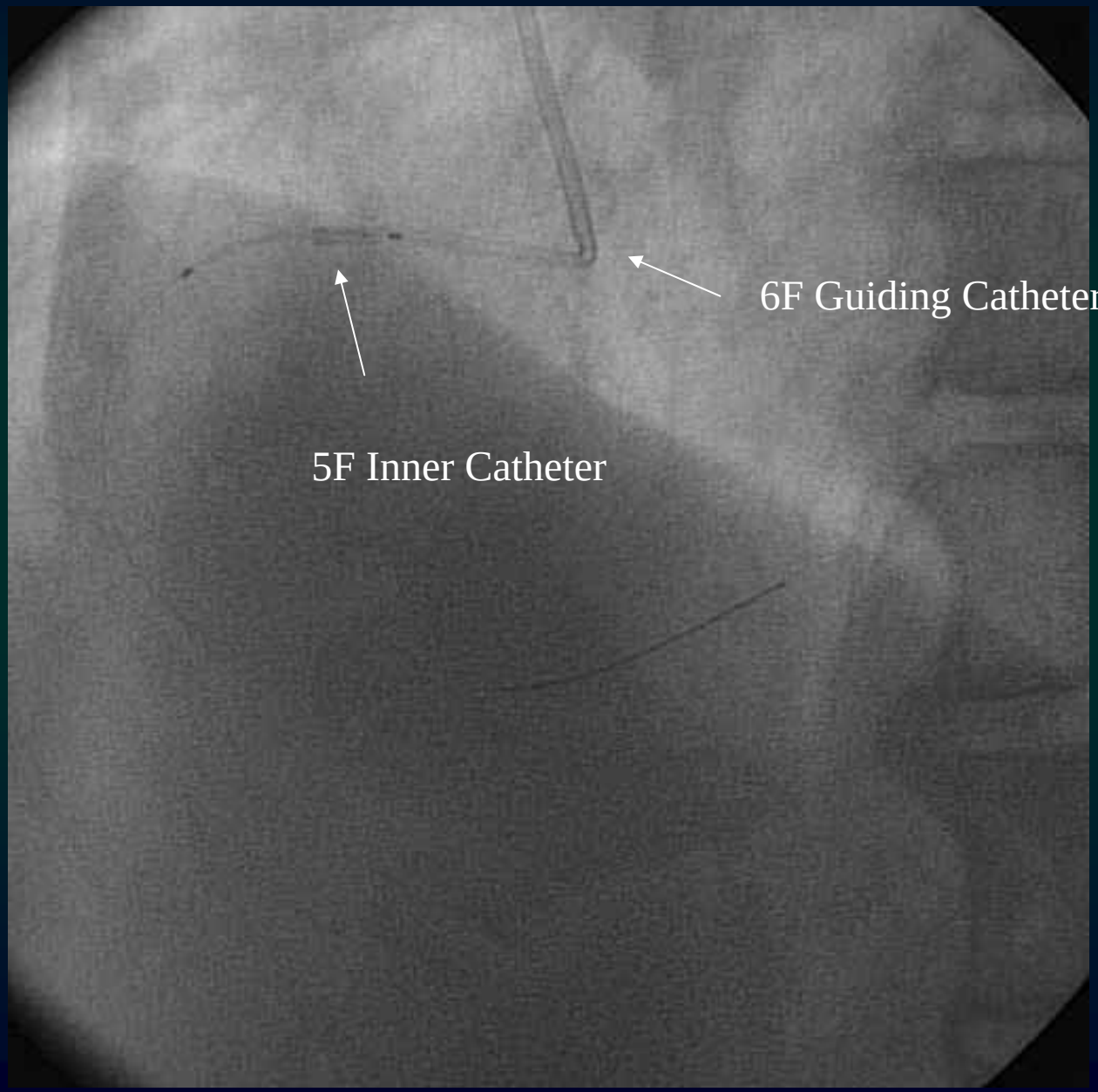
5 in 6F system



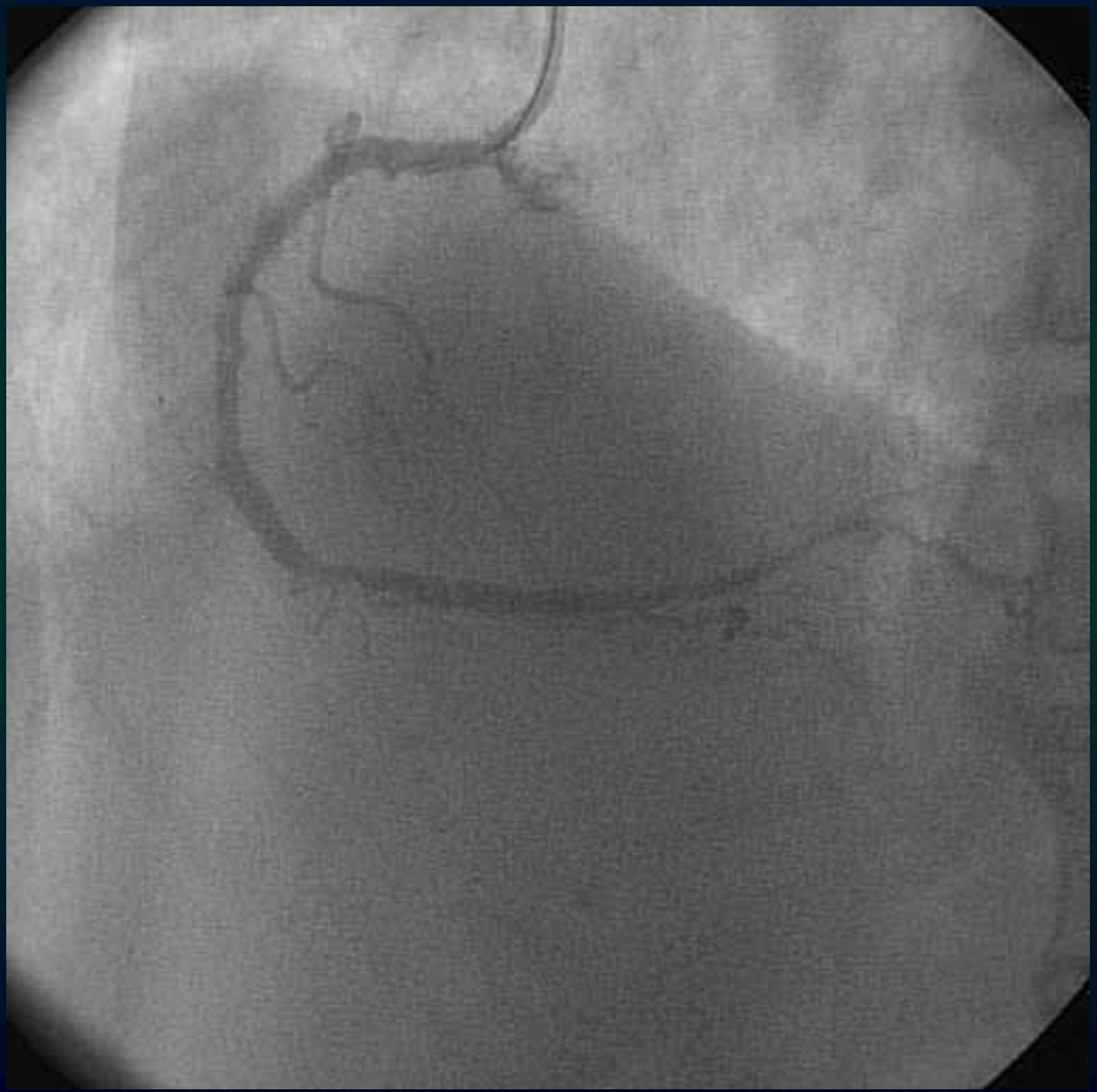
5 in 6F system



5 in 6F system

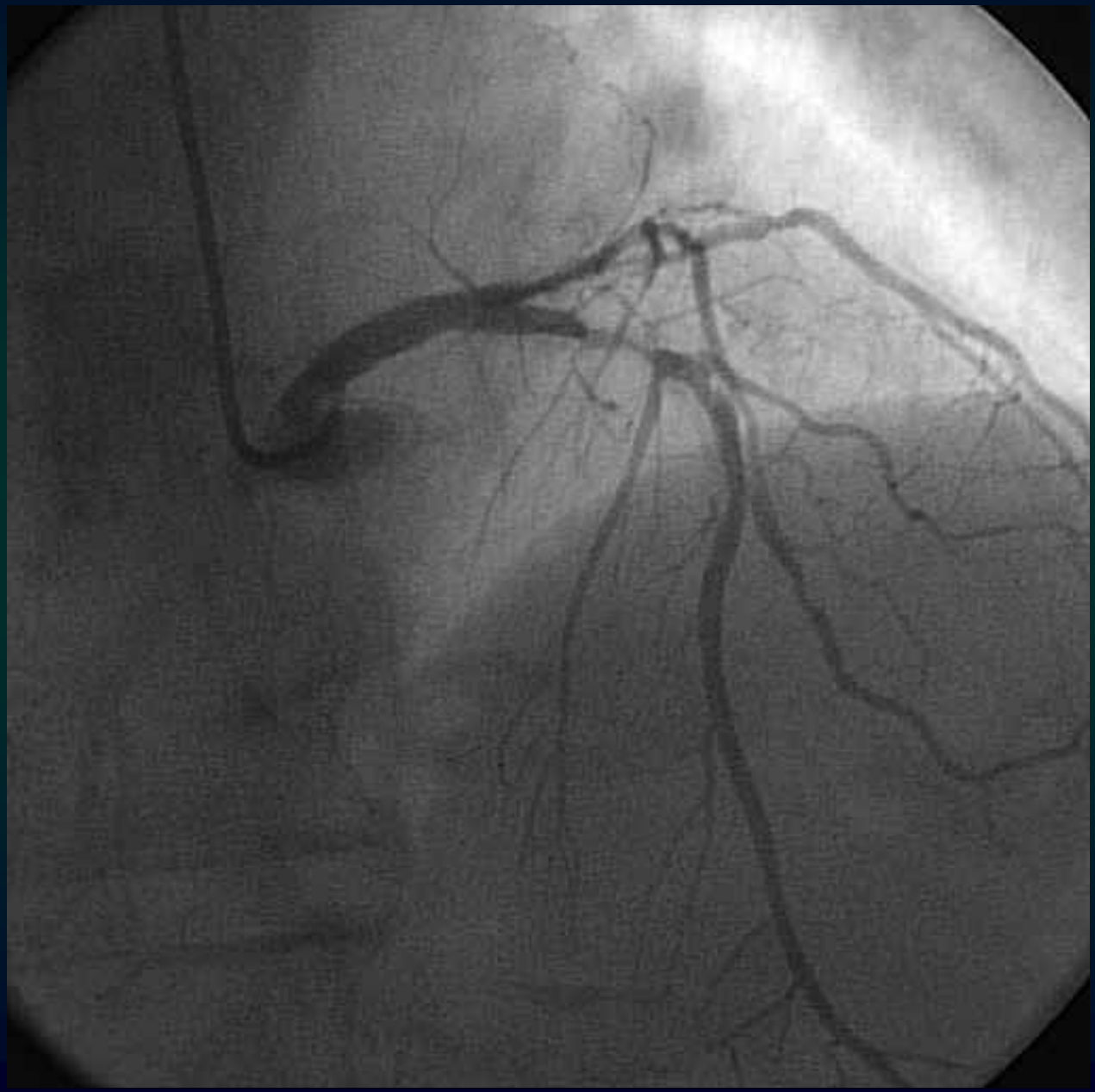


5 in 6F system

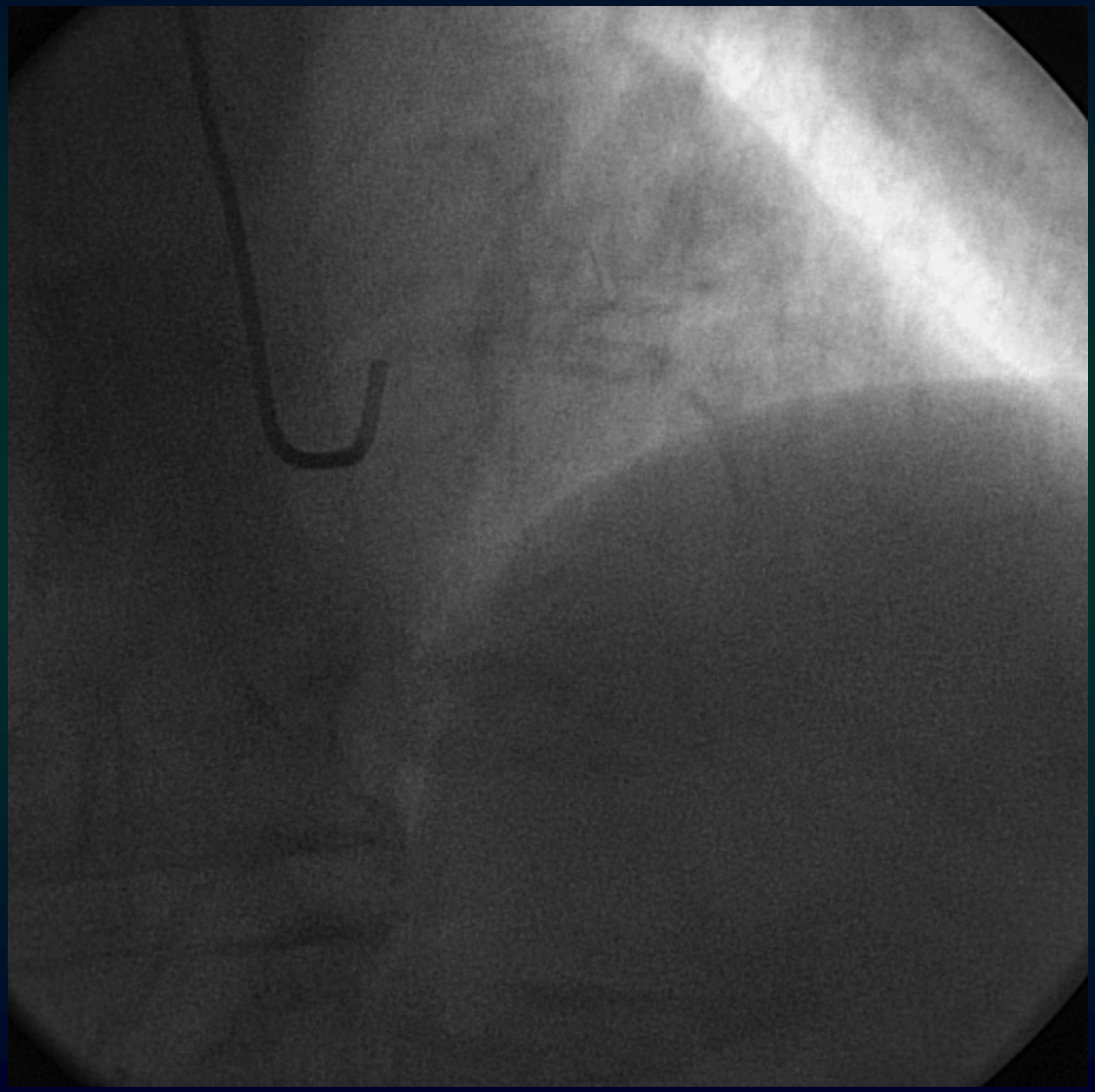


5 in 6F system

5 in 6F System 2

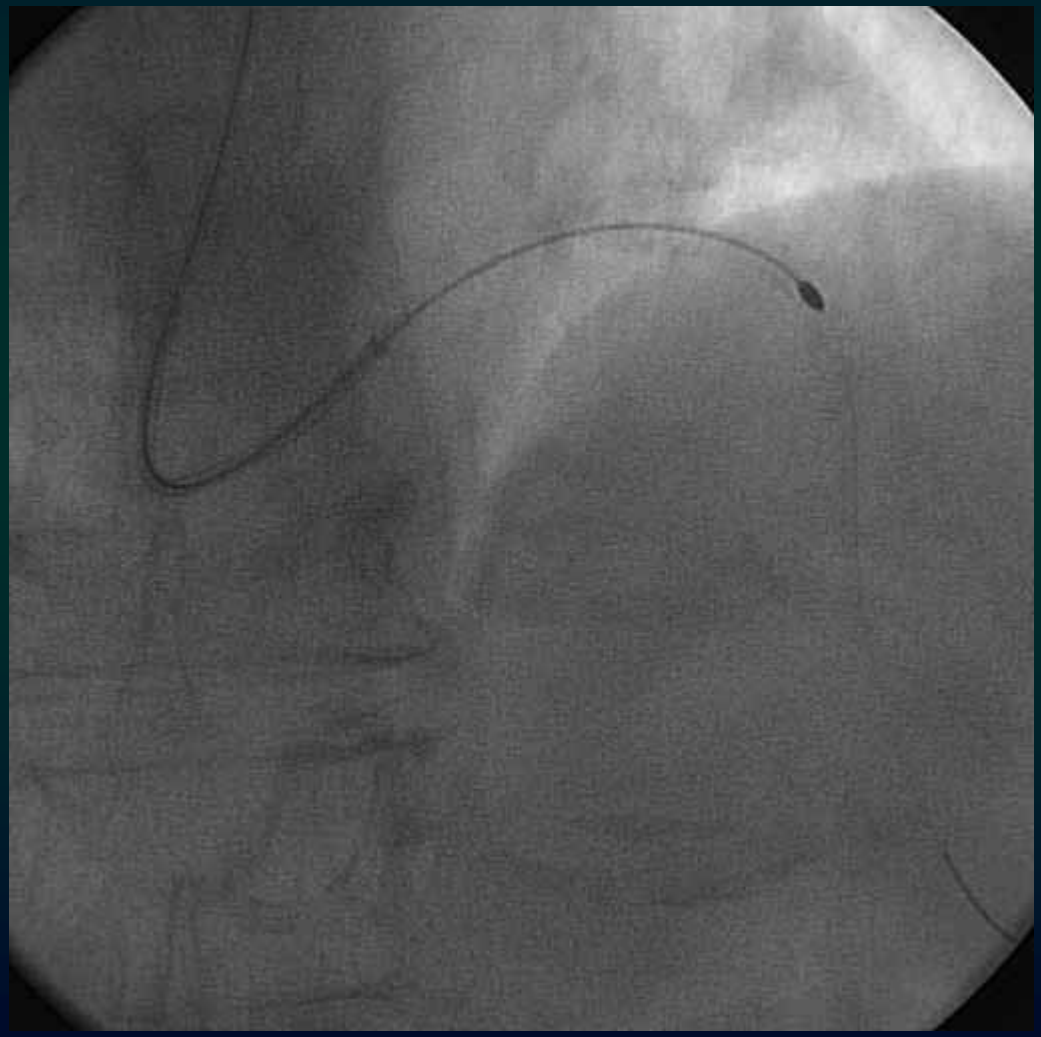


5 in 6F System 2



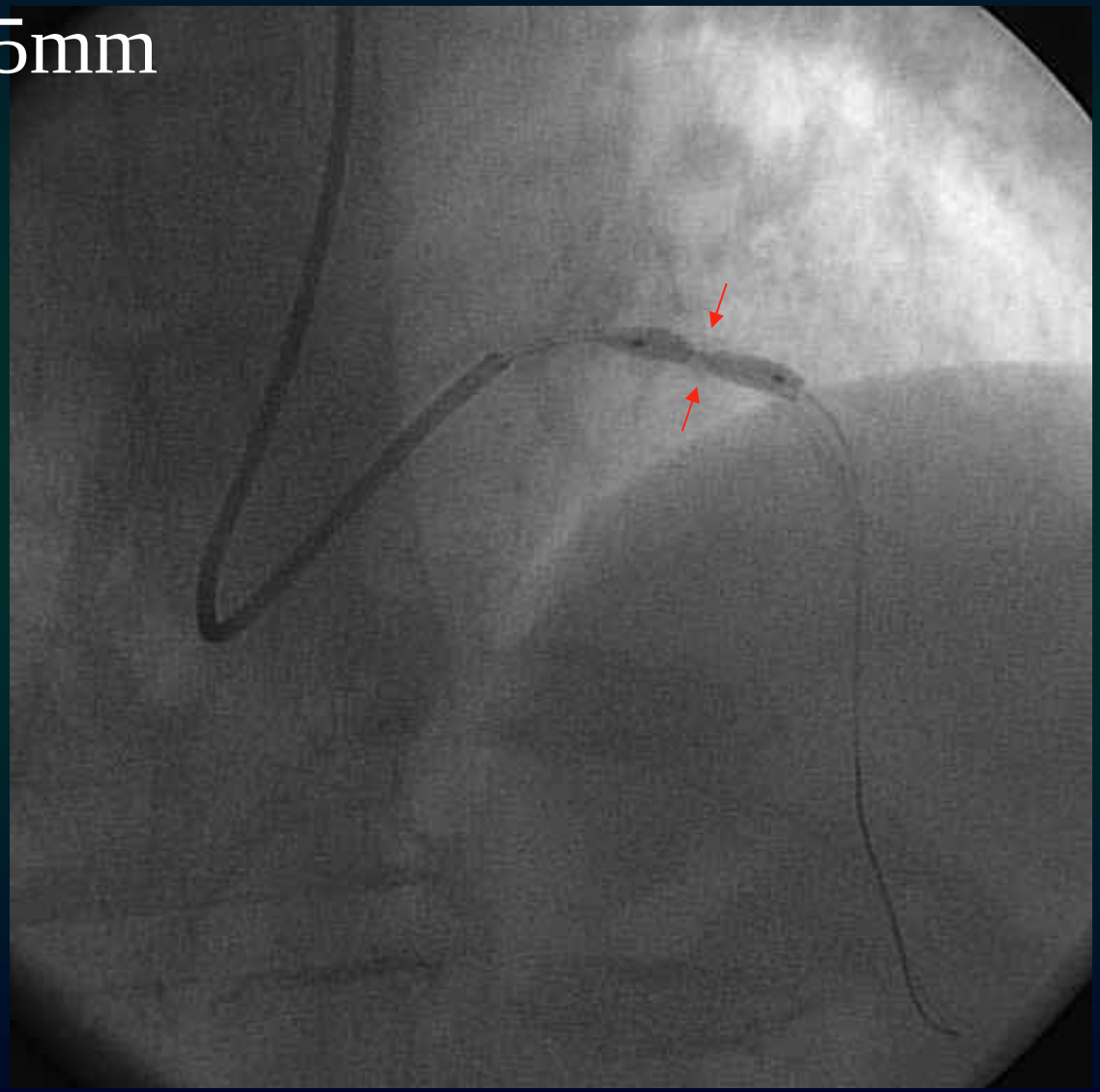
Ratablator

- Bar size
  1.5mm→1.75mm
- System
  - Rt Radial approach
  - GC : Terumo 6F IL-3.5



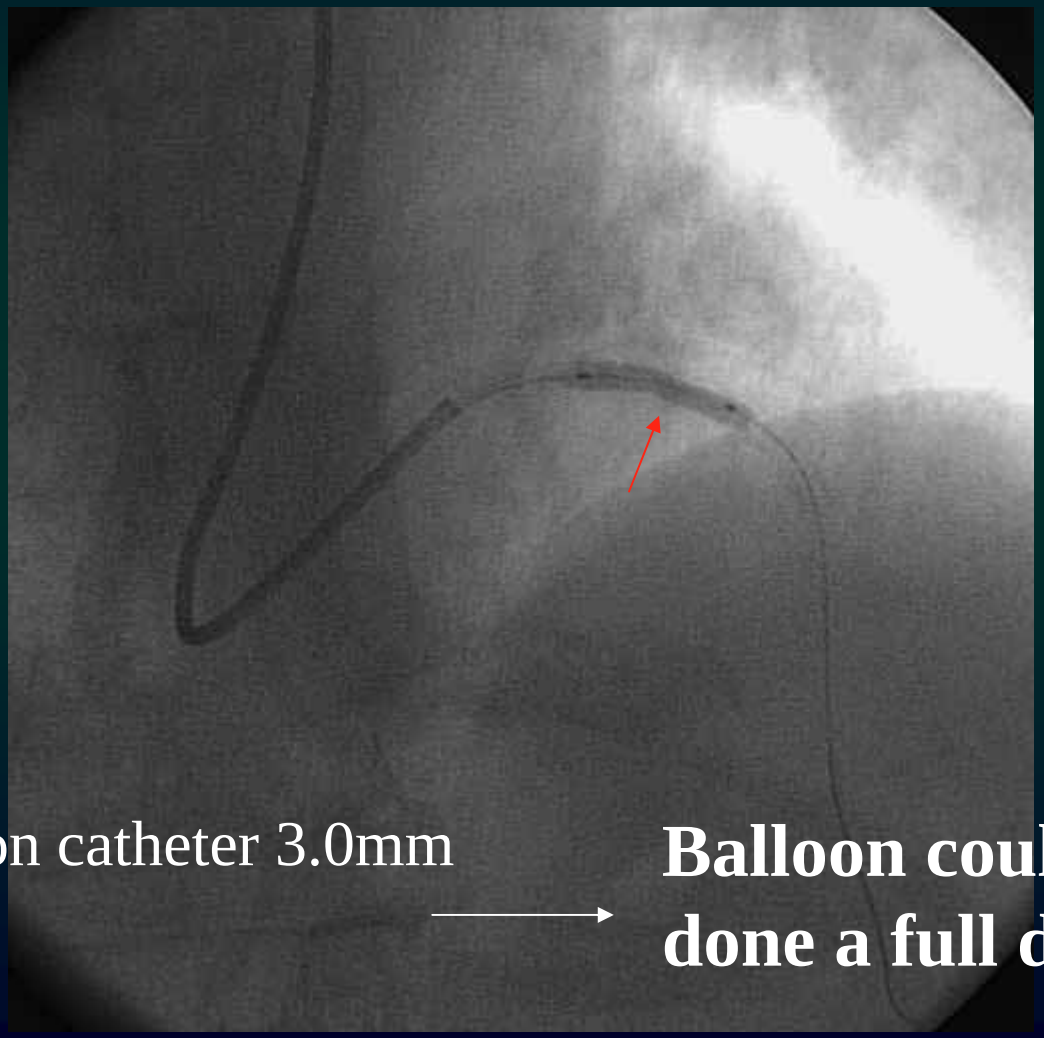
Balloon

- DE Slip-Z 3.0-15mm
- **28 atm**



Parallel GW Cutting

- We selected cutting technique used parallel GW



Same Balloon catheter 3.0mm
24 atm

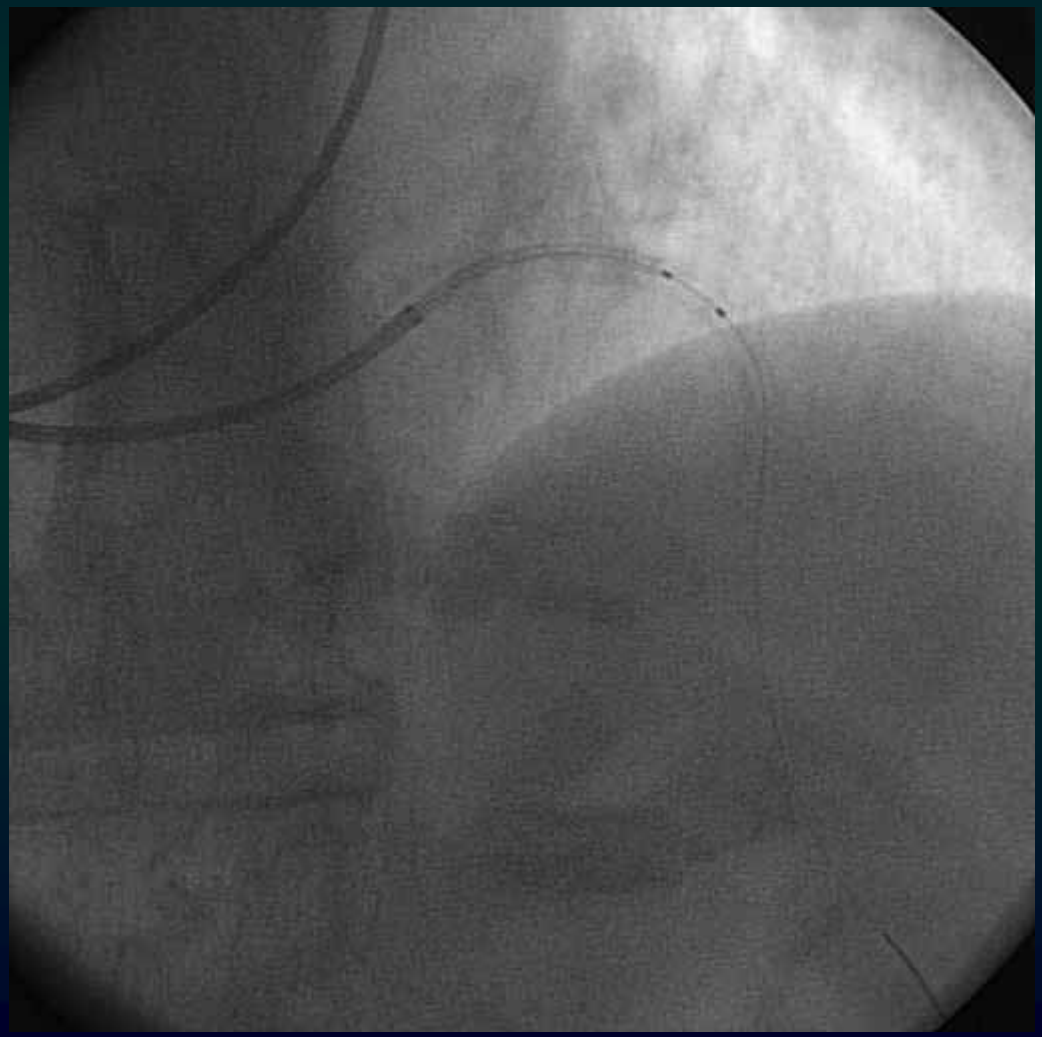
→ **Balloon could have done a full dilation !**

But

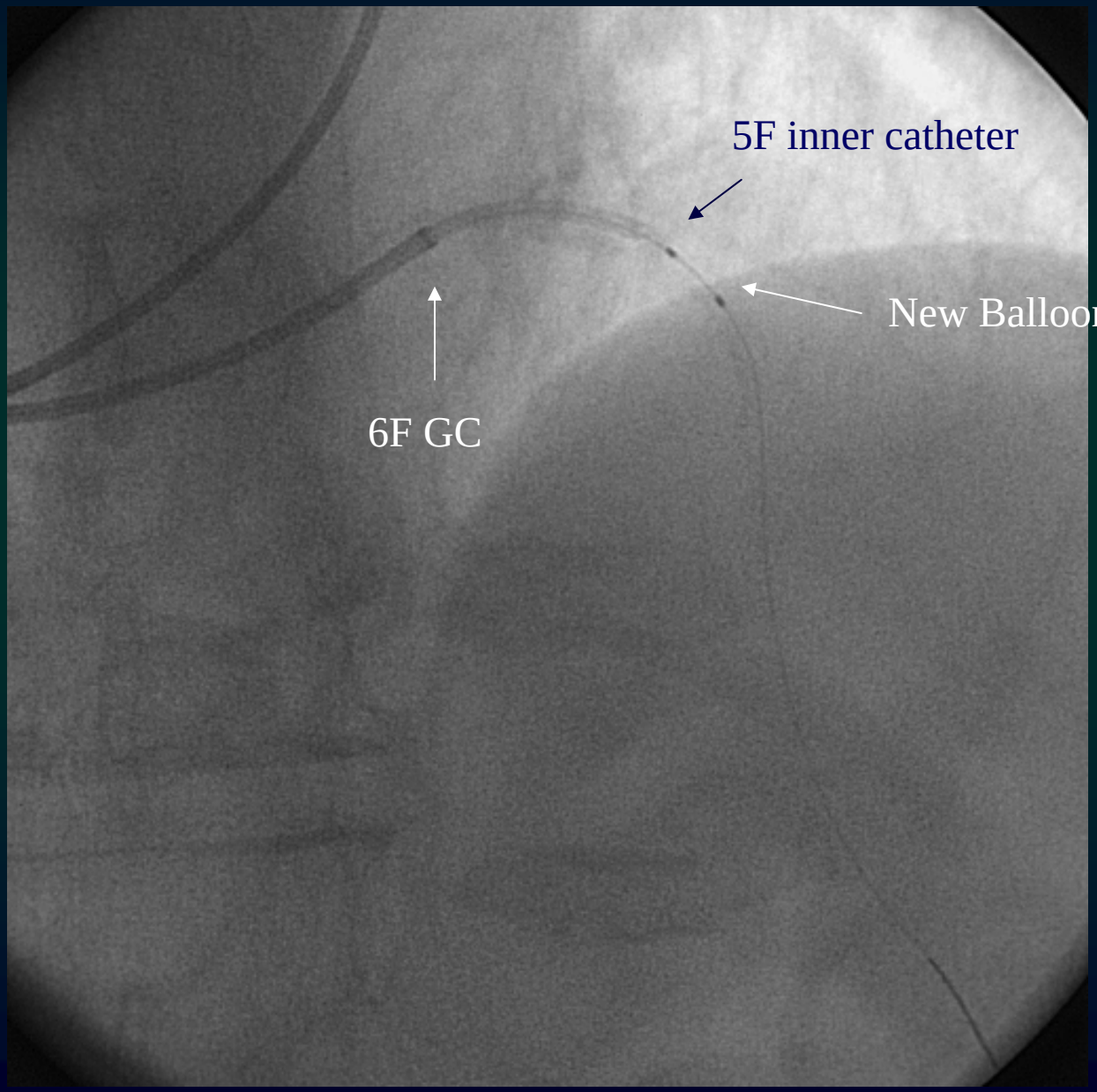
- Cypher stent not pass the target lesion
- Same balloon (DE Slip-Z 3.0mm) never again pass the target lesion
  - We used
    - GC Deep engaged
    - parallel GW technique
    - Standard 5 in 6F system
      - Never pass the target lesion

Advanced 5 in 6F system

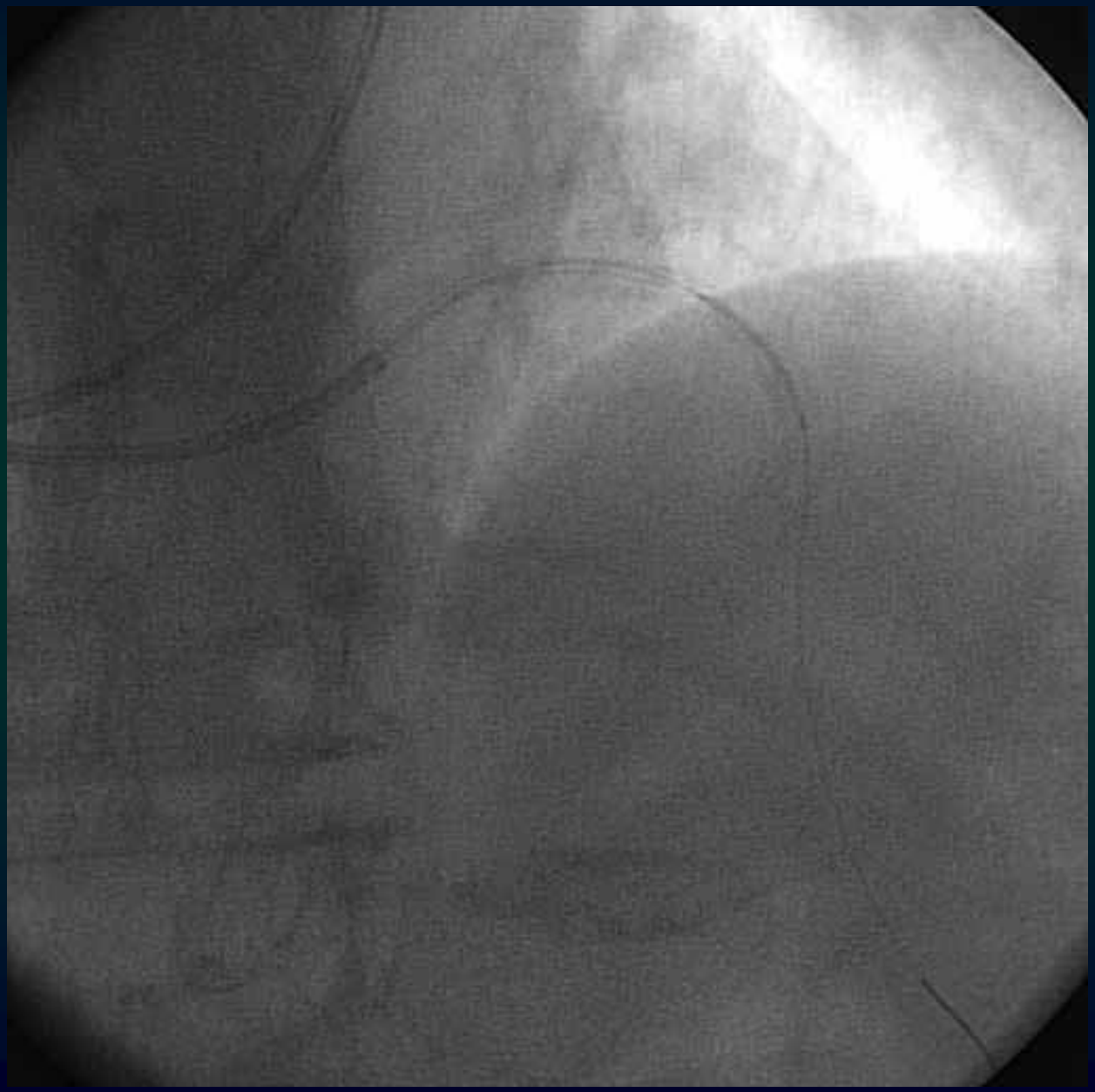
- 5F inner catheter deep engage for guiding a new balloon shaft.
- 5F inner catheter passed calcium lesion.



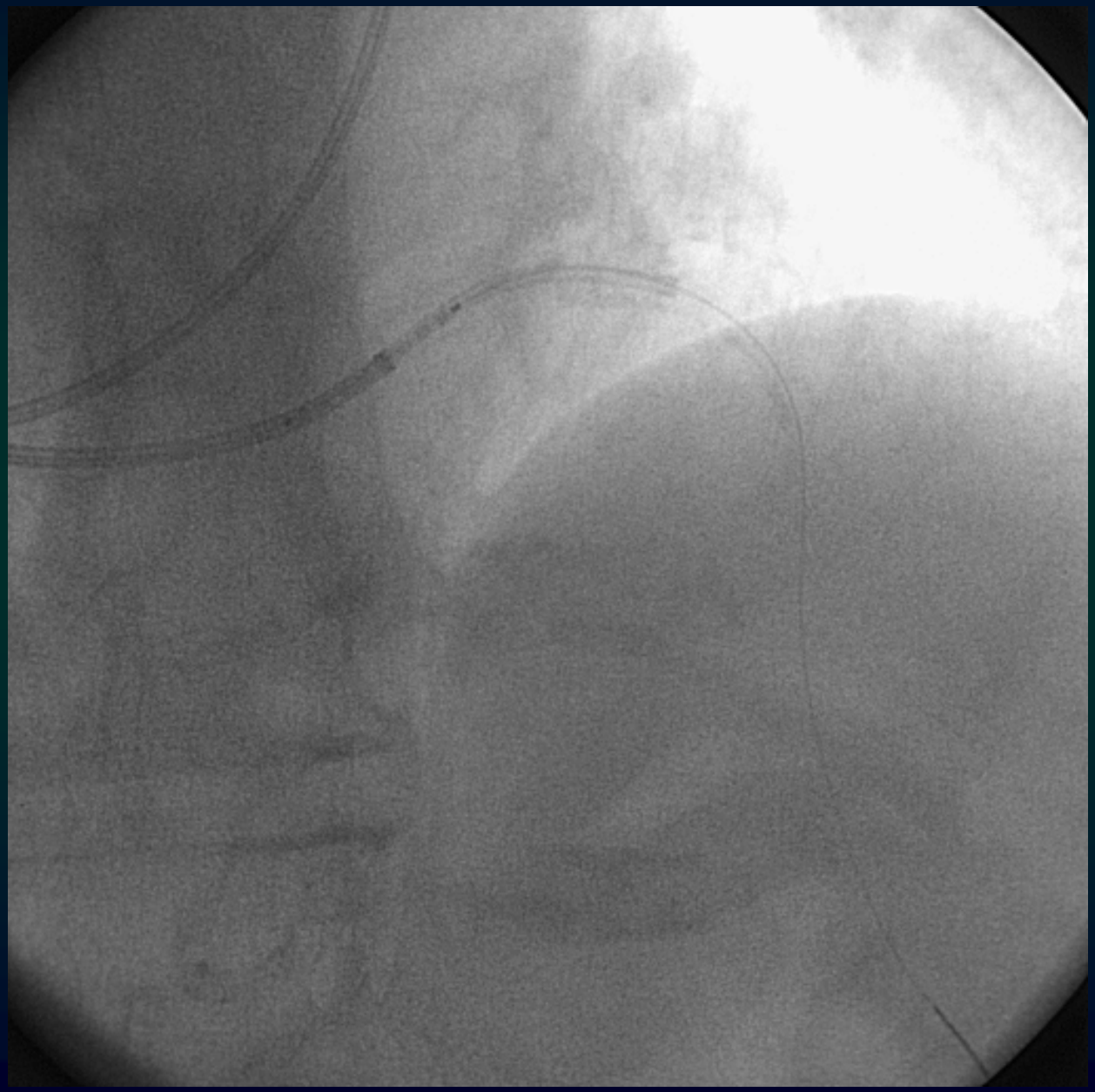
Advanced 5 in 6F system



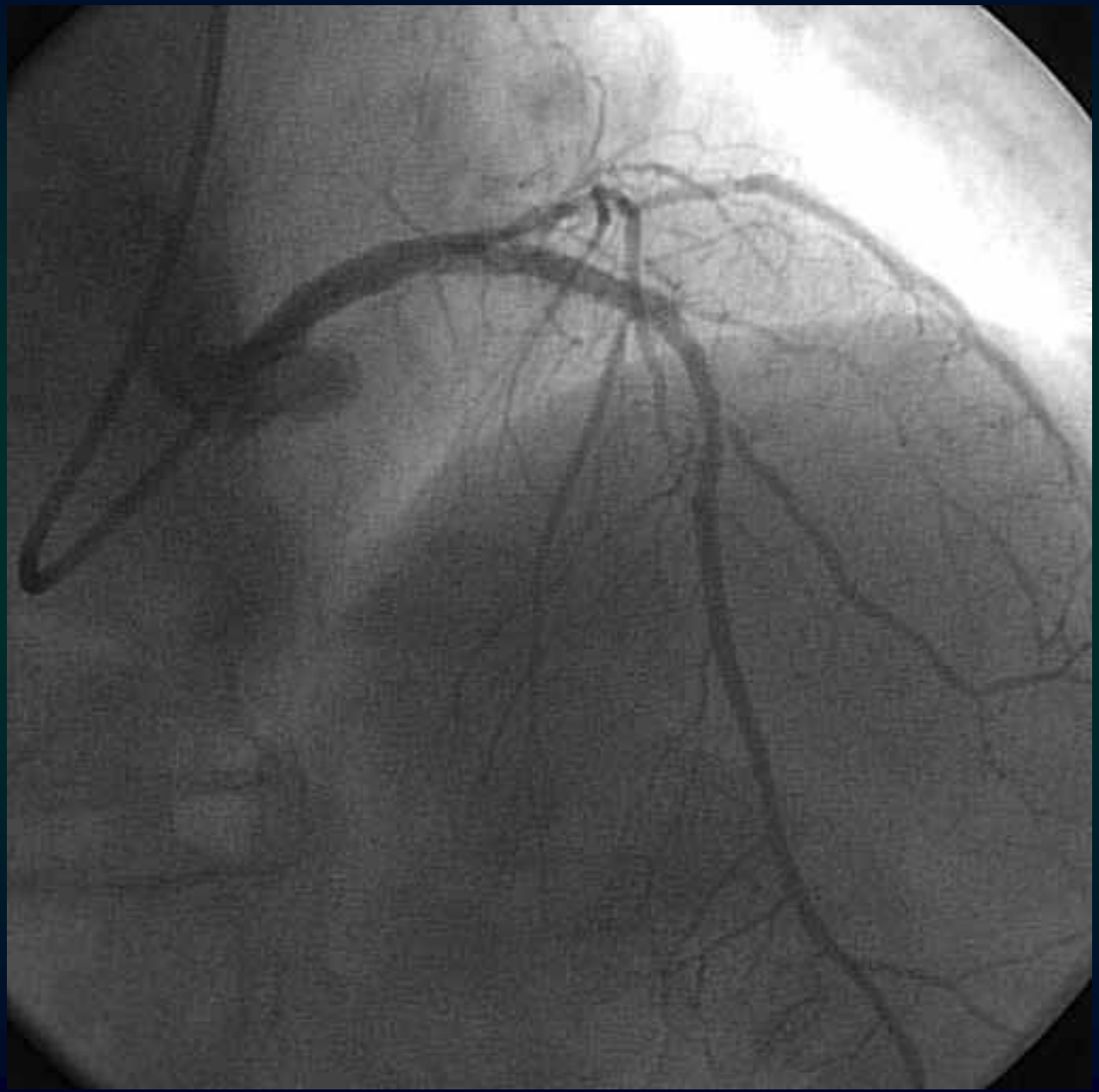
Cypher stent delivered



Cypher stent delivered



Final CAG



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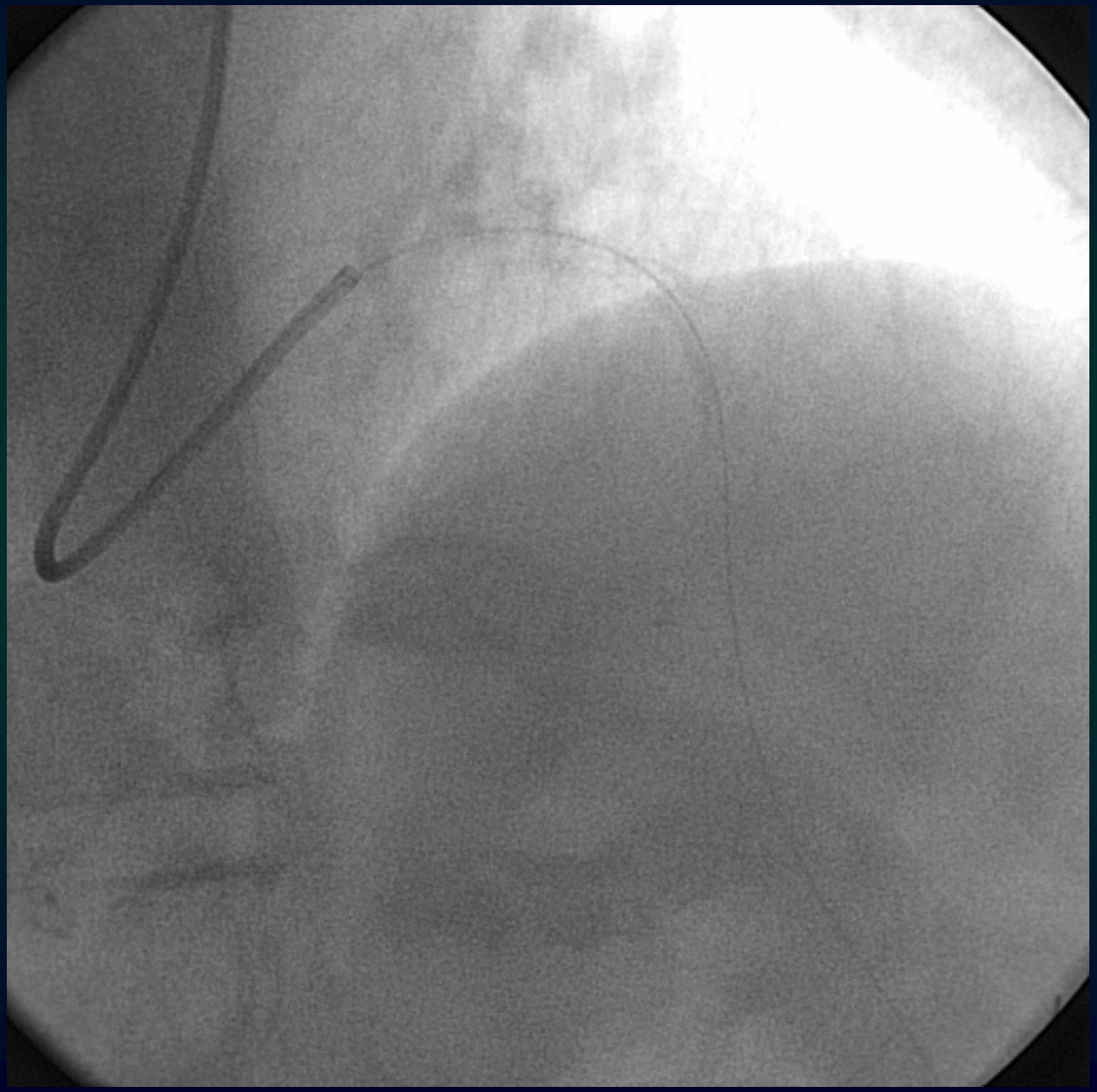
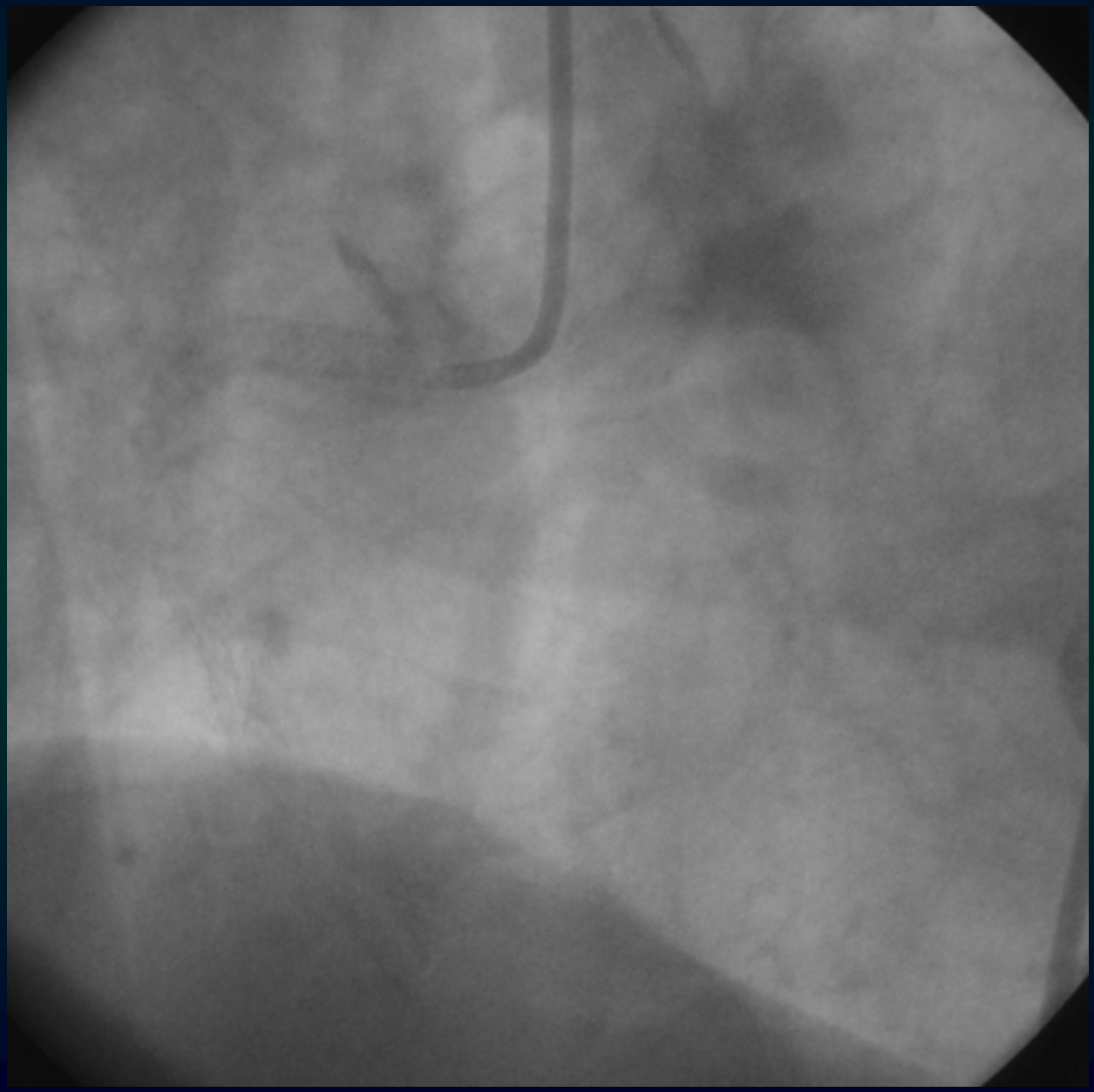


Coating Buddy Wire Technique

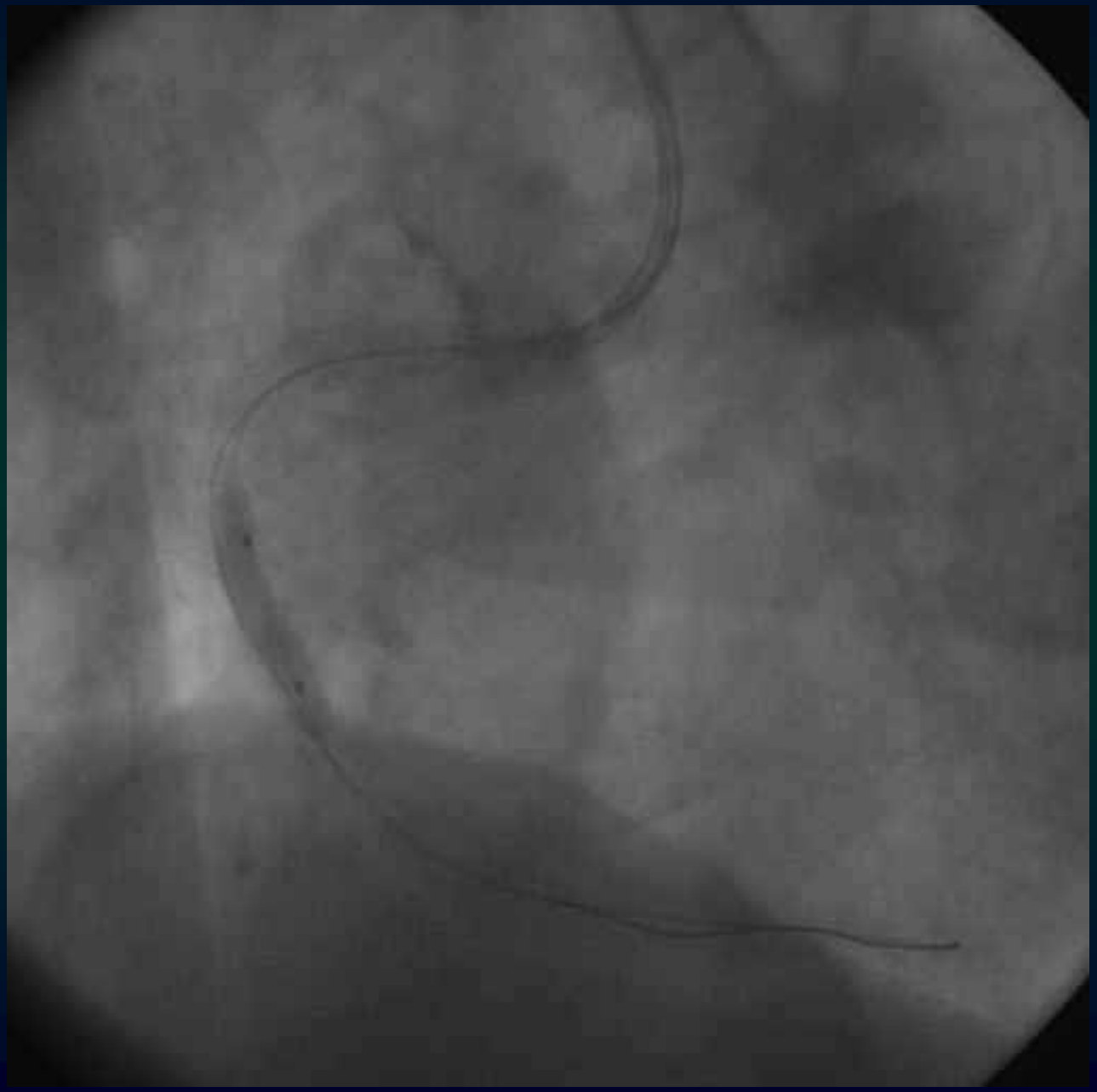
- More useful buddy wire
  - Buddy wire
    - Used “Null” coating plastic guide wire
      - Such as Wisper MS GW
  - Support & Slip in for Balloon/Stent etc.

Coating Buddy Wire

Coating Buddy Wire



Coating Buddy Wire



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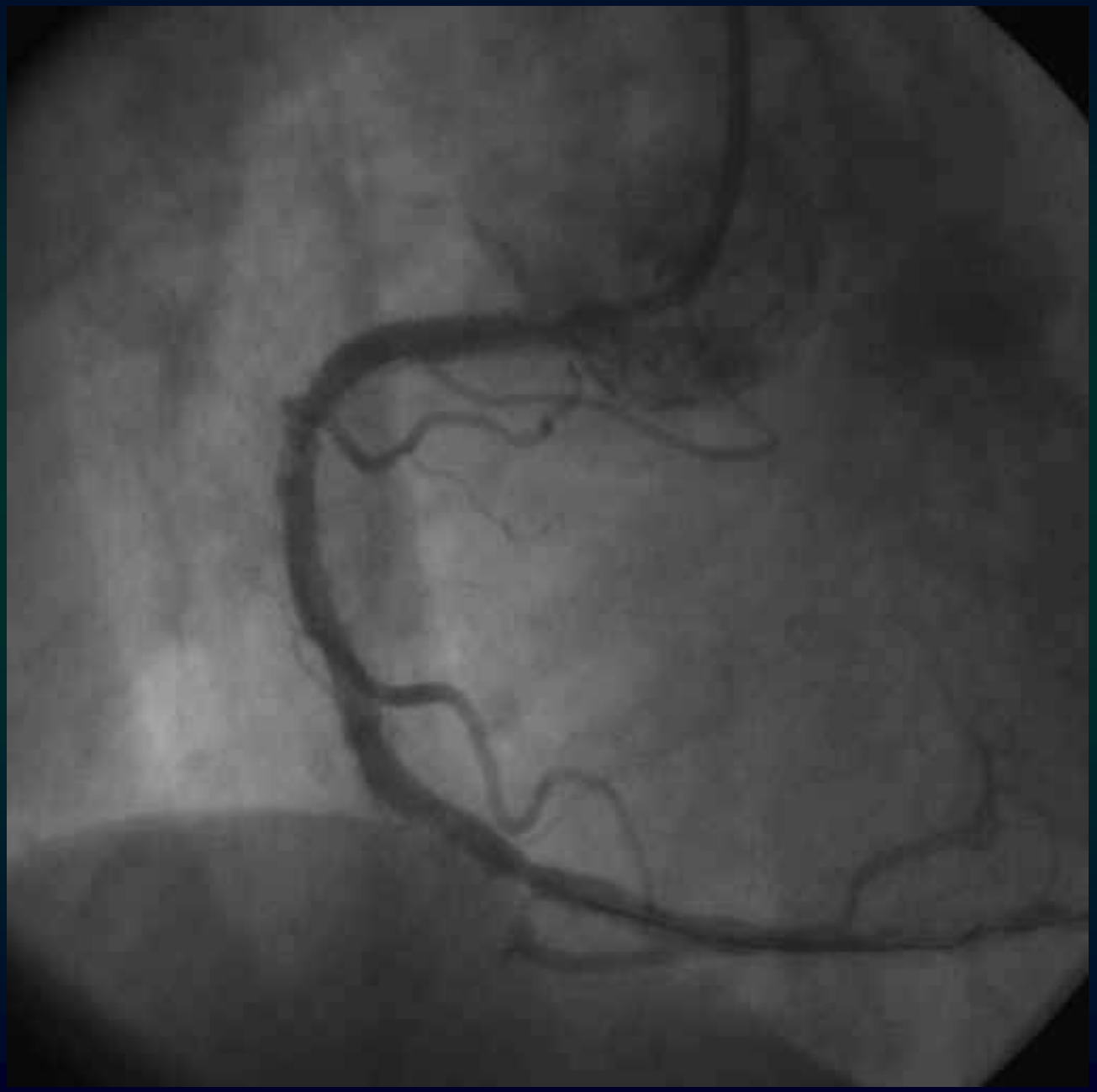

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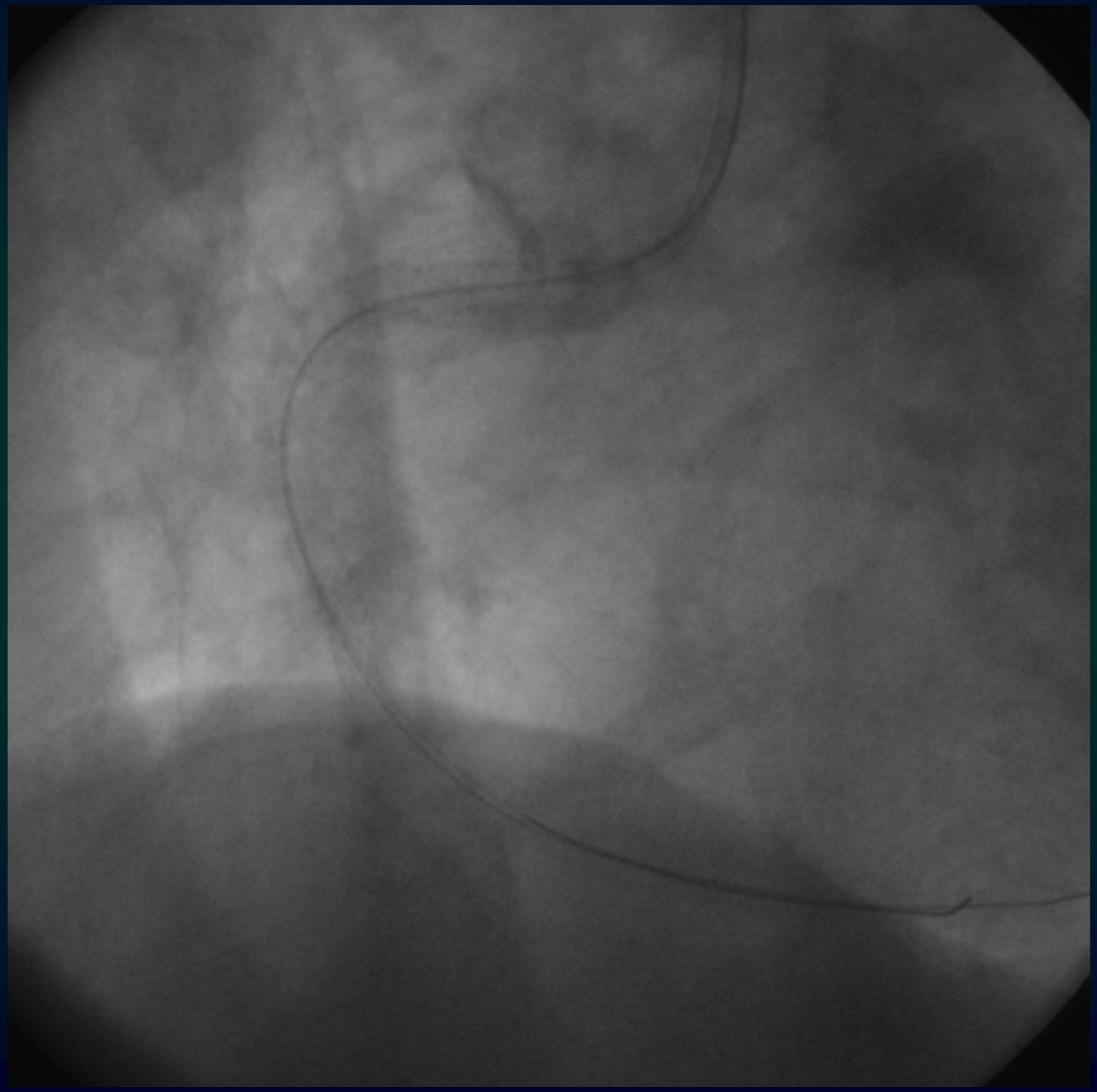

Conclusion

- TRI is very happy
  - for the patient, for the stuff, for the Doctor
- But very useful and cost benefit
- For Success of TRI, use combination those technique

We love TRI !