RCA CTO Recanalization
RCART
Step by step

September 6, 2022

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Shamir Assaf Harofeh Medical Center

Be’er-Yaakov, Israel

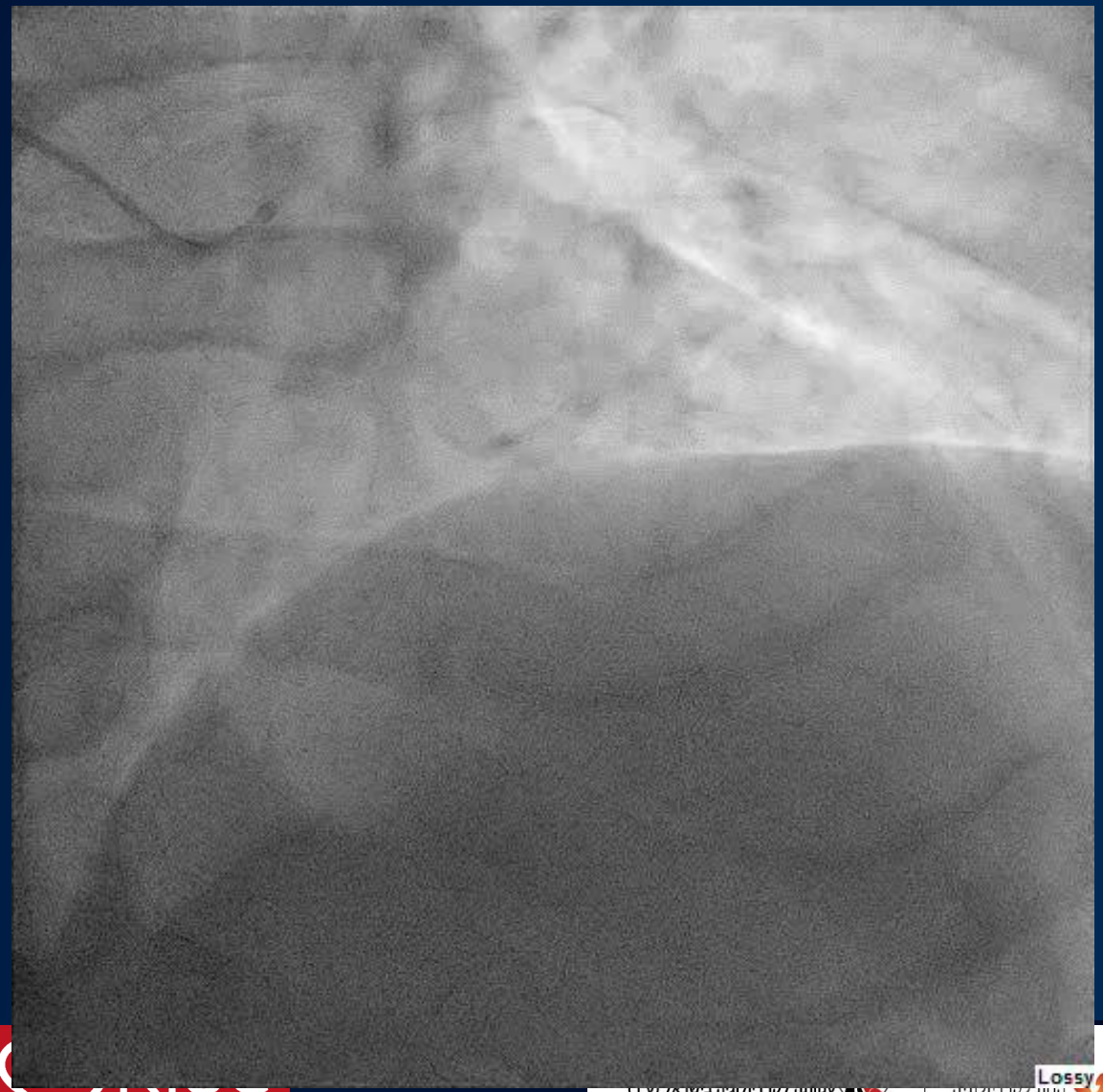
RISC Registry of Israeli CTO Collaboration

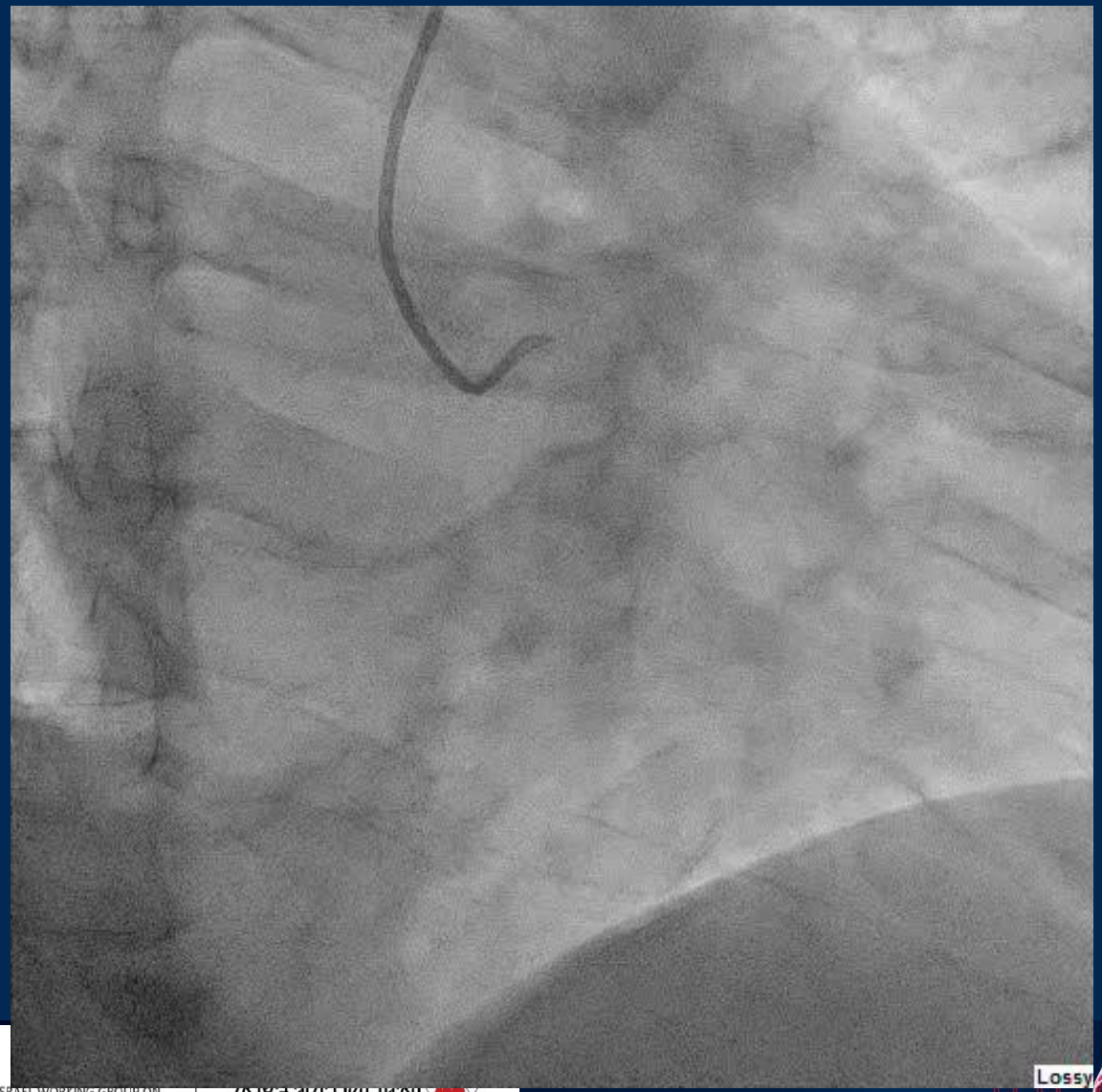
בשיתוף:
עמותה לקרדיולוגיה בישראל (ע"ר)
ISRAEL CARDIOLOGY ASSOCIATION
החוג לקרדיולוגיה התערבותית
THE ISRAEL WORKING GROUP ON INTERVENTIONAL CARDIOLOGY
האיגוד הקרדיולוגי בישראל
ISRAEL HEART SOCIETY

Patient

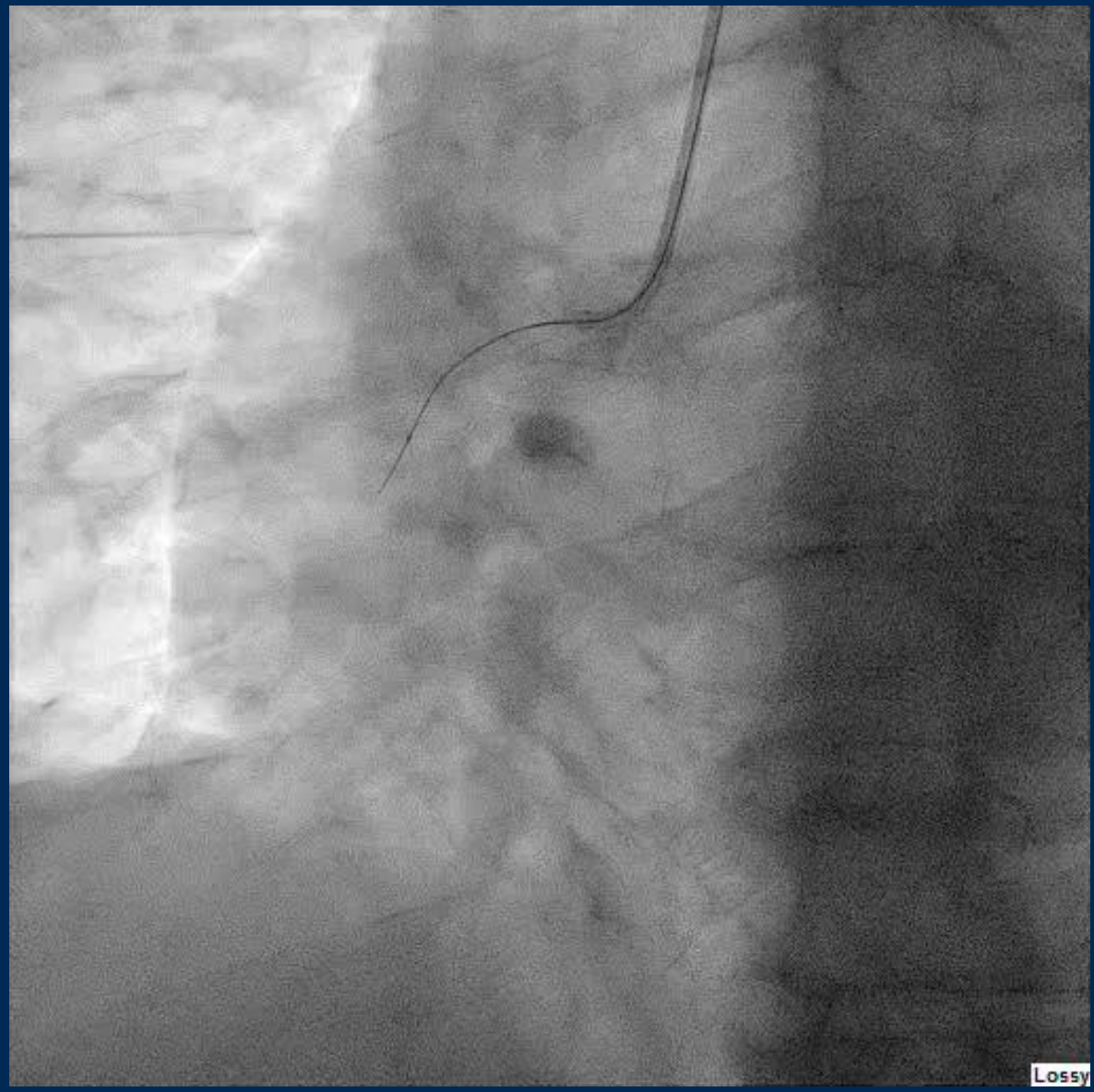
- 60 YOM
- RF — Obesity, HTN, Smoker
- PMH — NSTEMI 10 month ago, TnI 180
- CAG — 1VCAD;
- PCI — Attempted Anterograde PCI to RCA CTO, Stopped d/t Dissection
- Echo — EF 45-50% Inferior Posterior RWMA
- Labs — GFR 82 Cre 0.95 Hb 15.1
- Meds — DAPT; BB; CCB; Statin; Ezetrol; PPI
- SPECT — 14% Inferior Ischemia
- Presentation — Angina CCS3 Dyspnea CCS 2 able to walk less than 100 m

Previous CAG



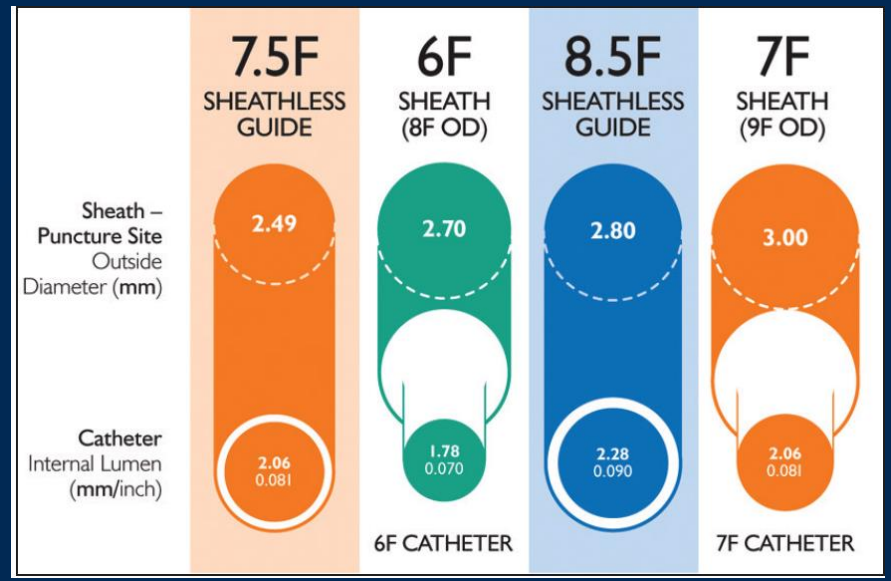


PCI Attempt



Access

Bi-radial 6Fr/7Fr
US assessment



Wassef A., *Card. Interv 2017*

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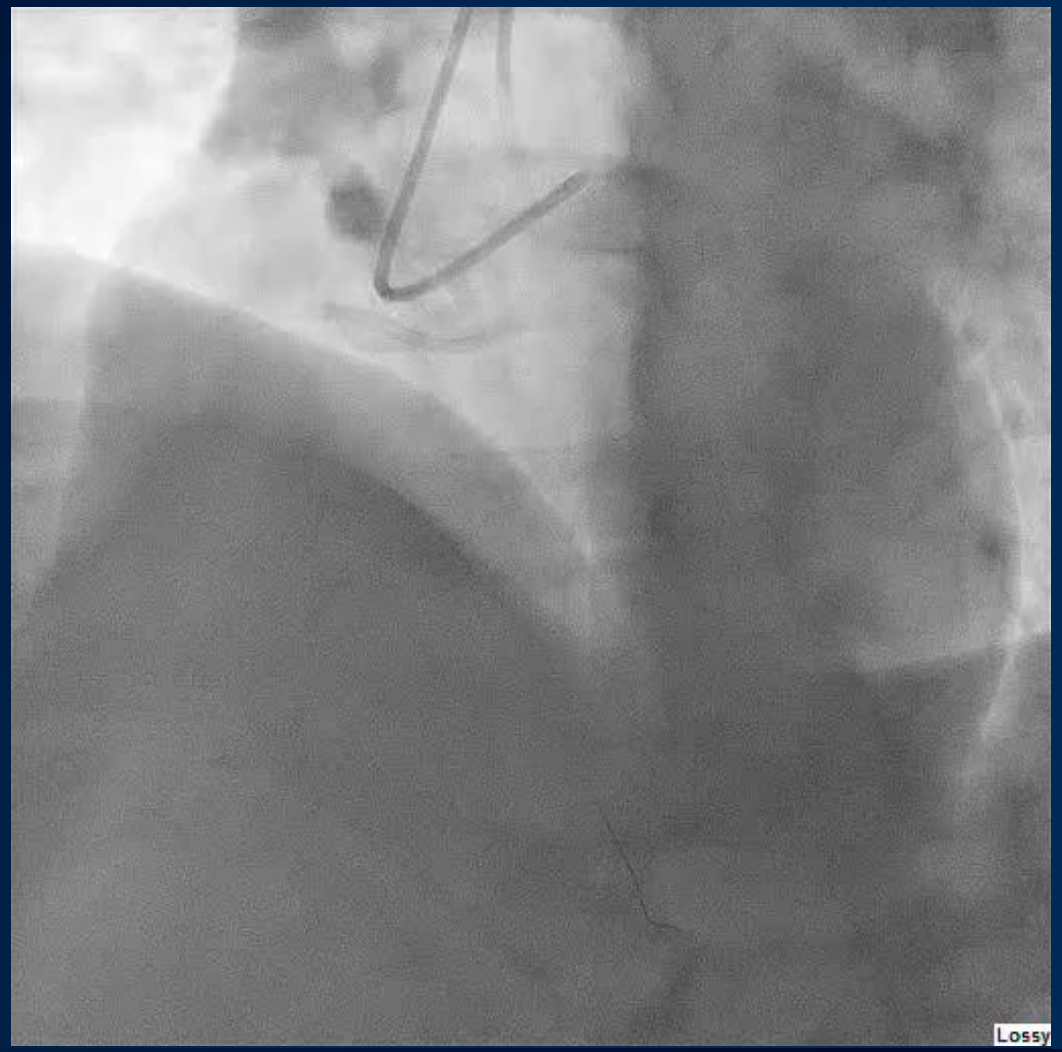
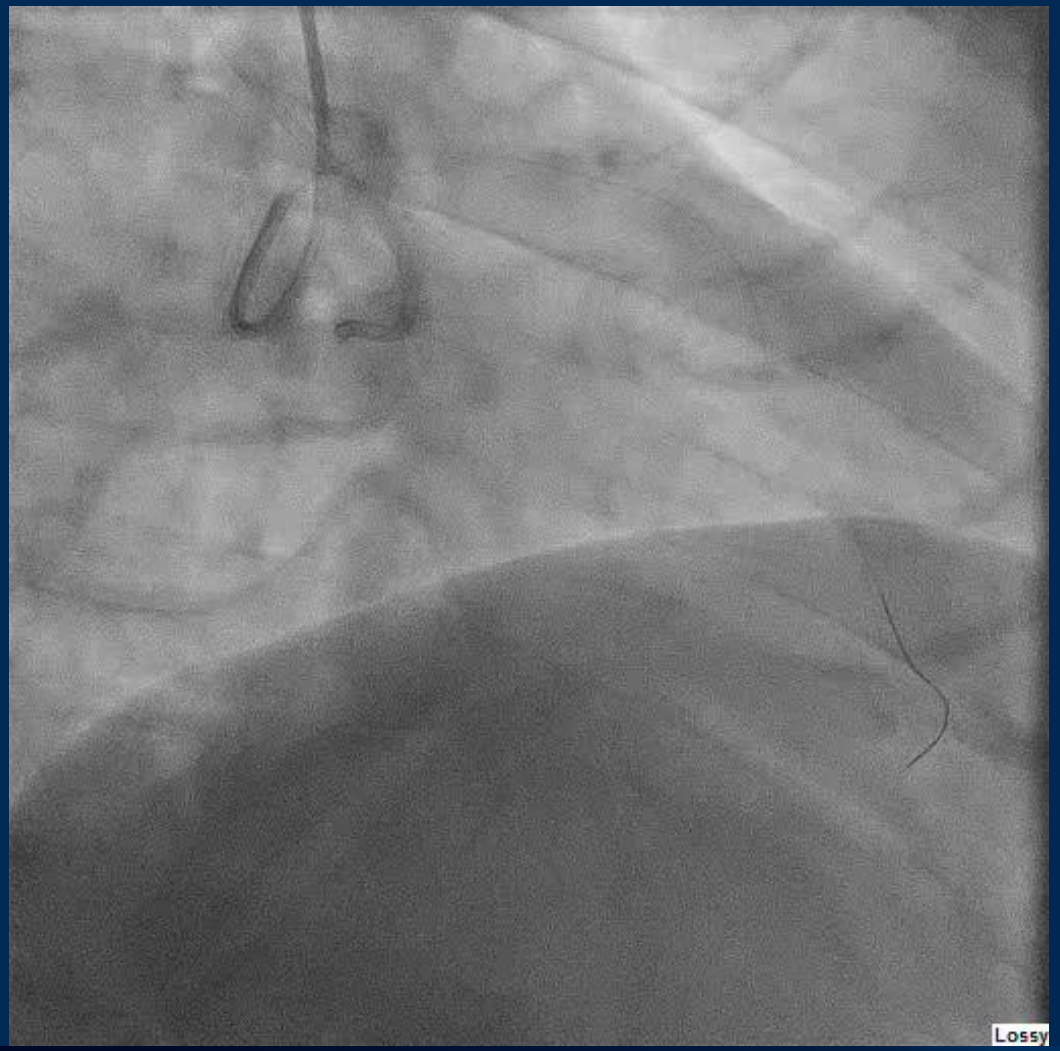
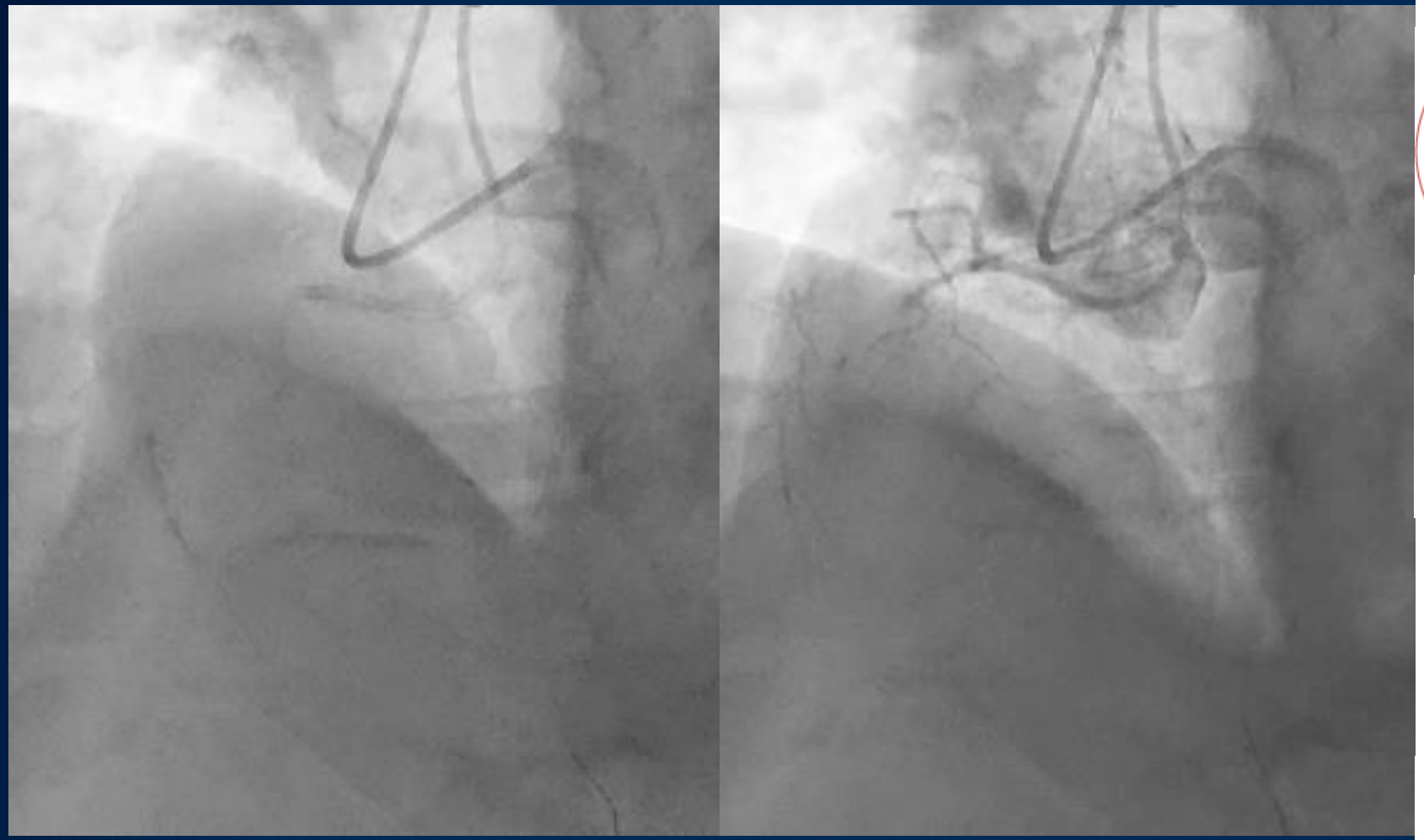
1. Setup

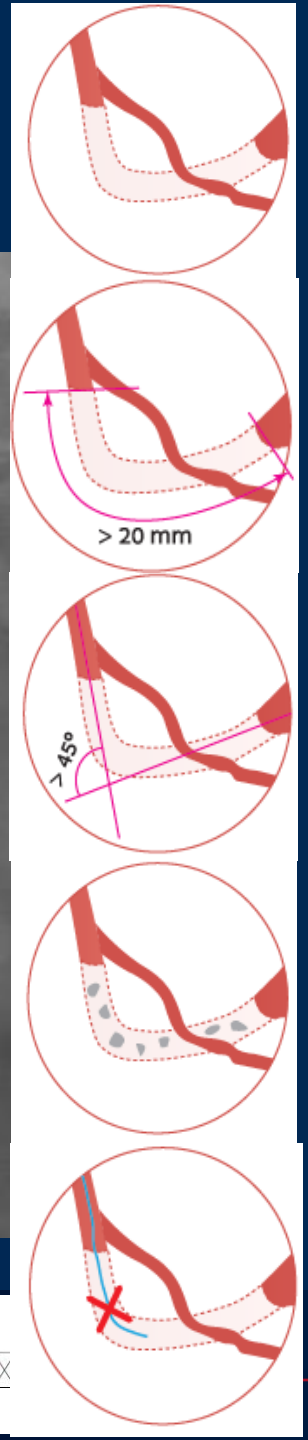




1. Setup

2. Strategy. JCTO Score

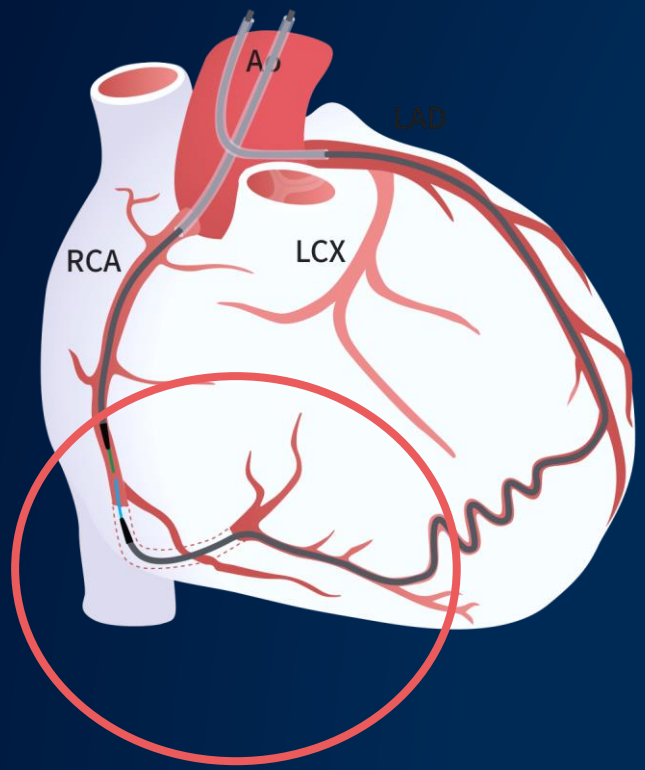


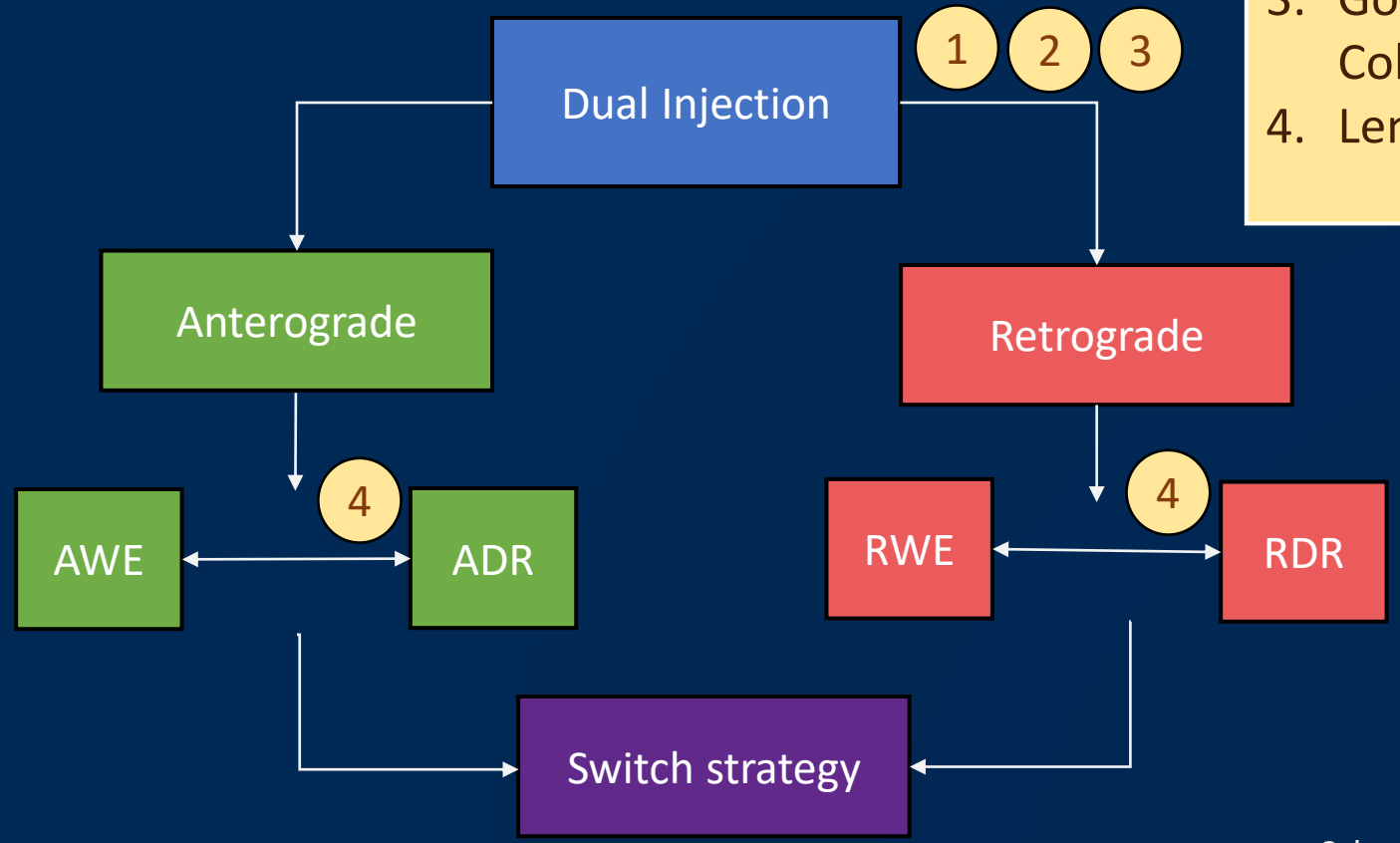


1. Blunt cap
2. Length
3. Angle
4. Calcium
5. Previous failure

2. Strategy. CTO Algorithm

1. Proximal Cap ambiguity
2. Poor Landing zone
3. Good Quality Collaterals
4. Length >20

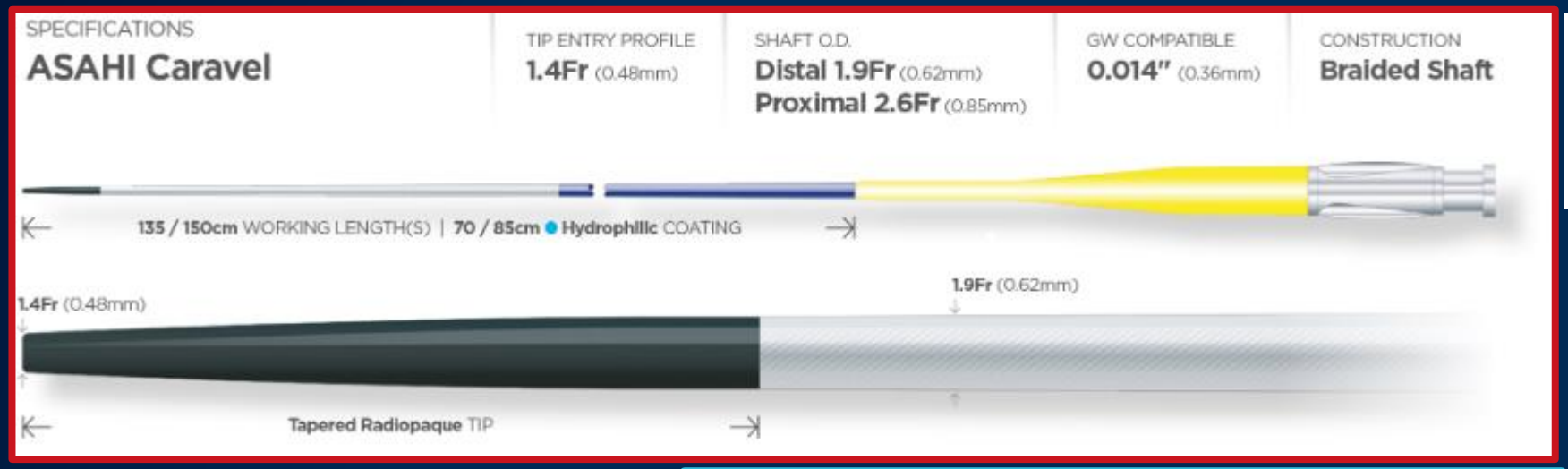




Schumacher, 2019

2. Strategy

3. Anterograde wiring. Caravel Microcatheter.



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Teleflex®
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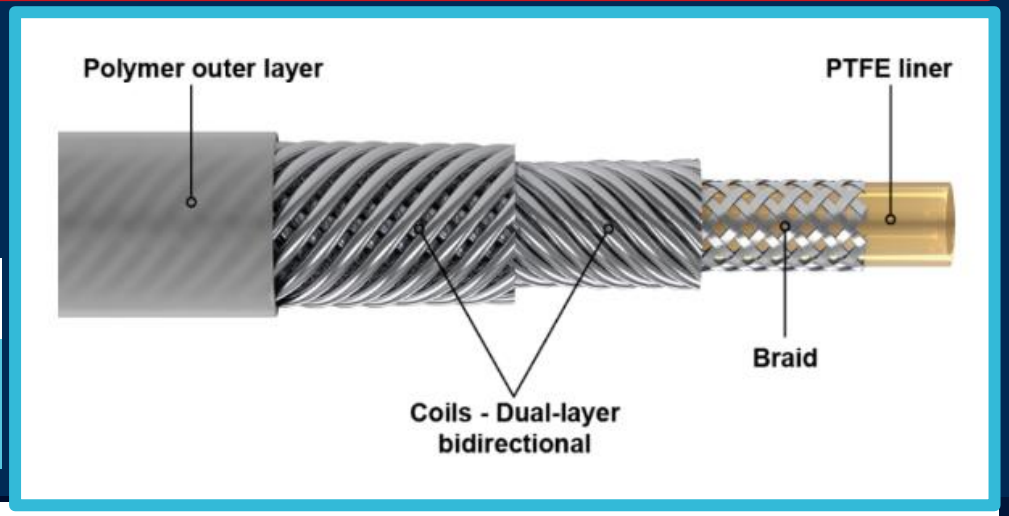
Catheters



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3. Anterograde wiring. 4.Escalation. 5.De-escalation.

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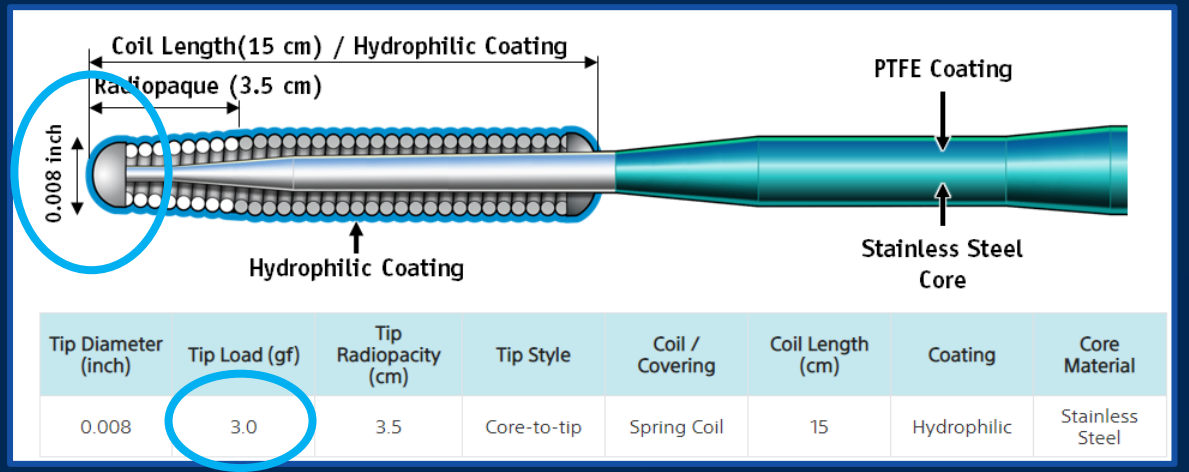
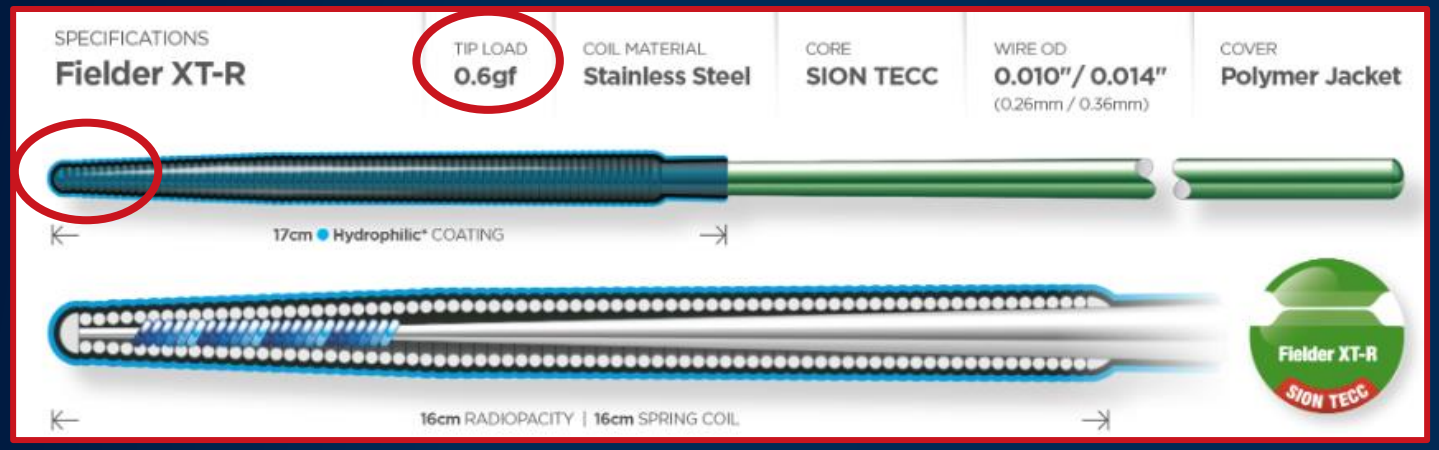


Tip Diameter (inch)	Tip Load (gf)	Tip Radiopacity (cm)	Tip Style	Coil / Covering	Coil Length (cm)	Coating	Core Material
0.008	3.0	3.5	Core-to-tip	Spring Coil	15	Hydrophilic	Stainless Steel



Boston Scientific
Advancing science for life™
SENTAI™ Guidewires

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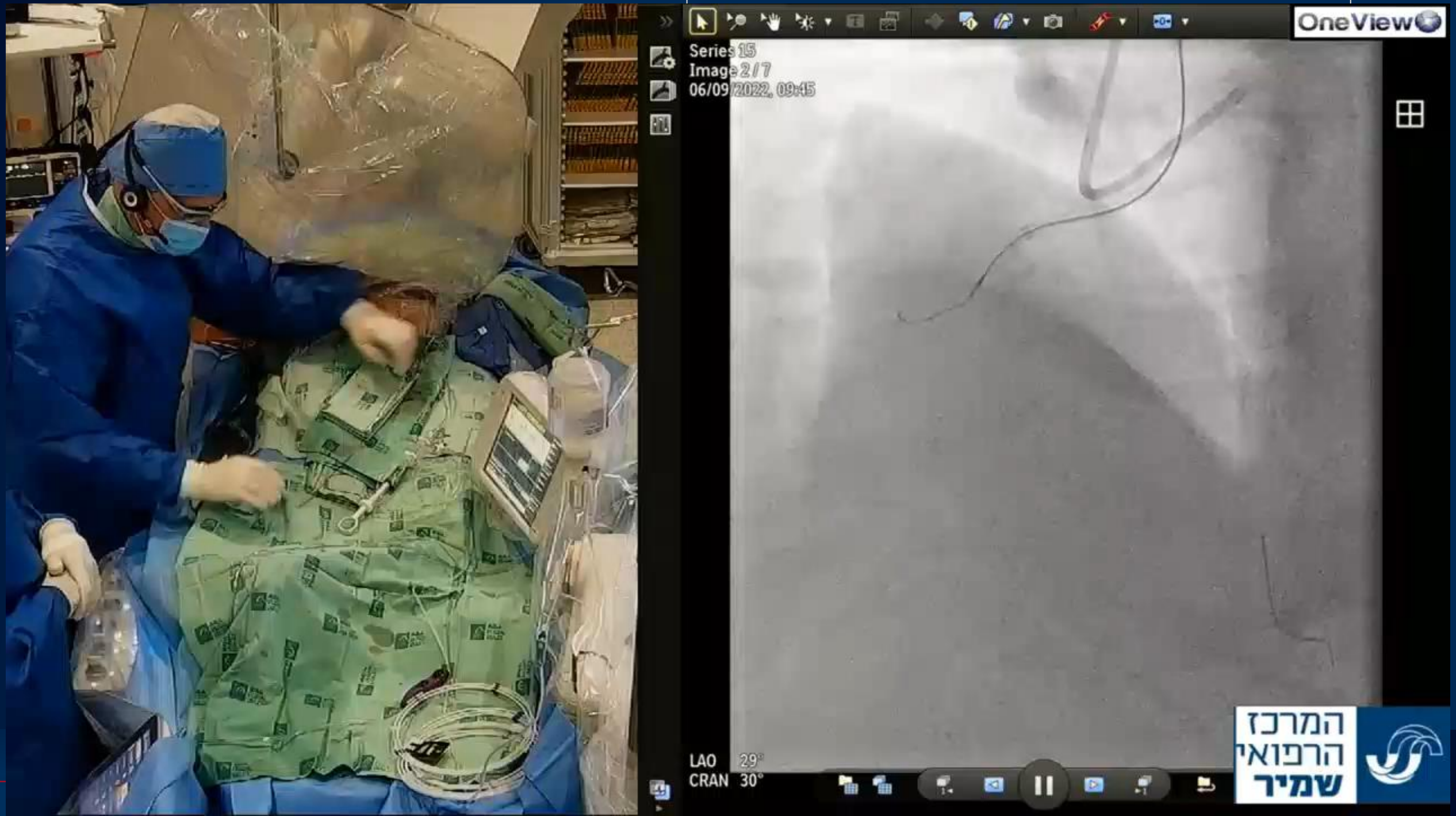
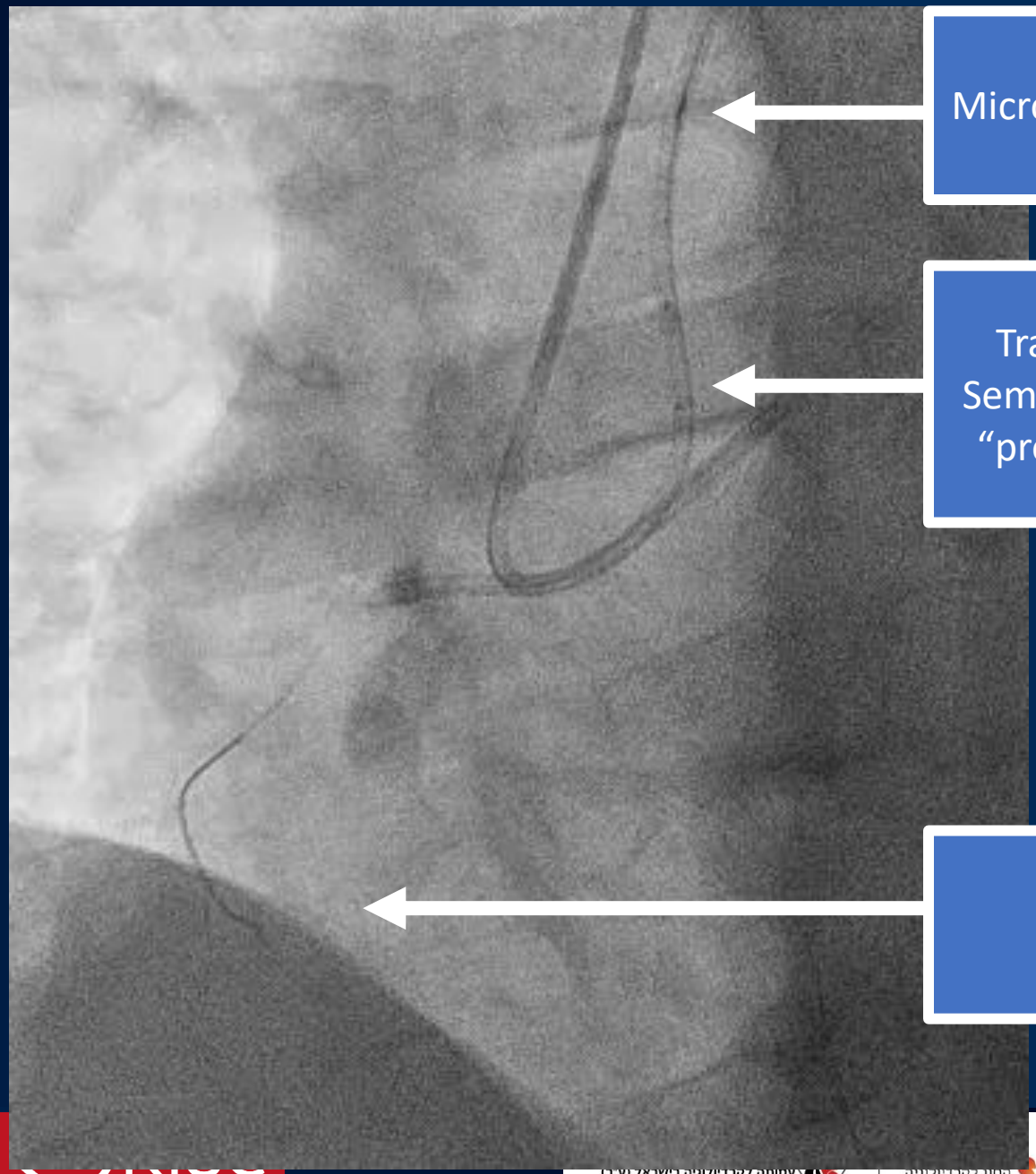
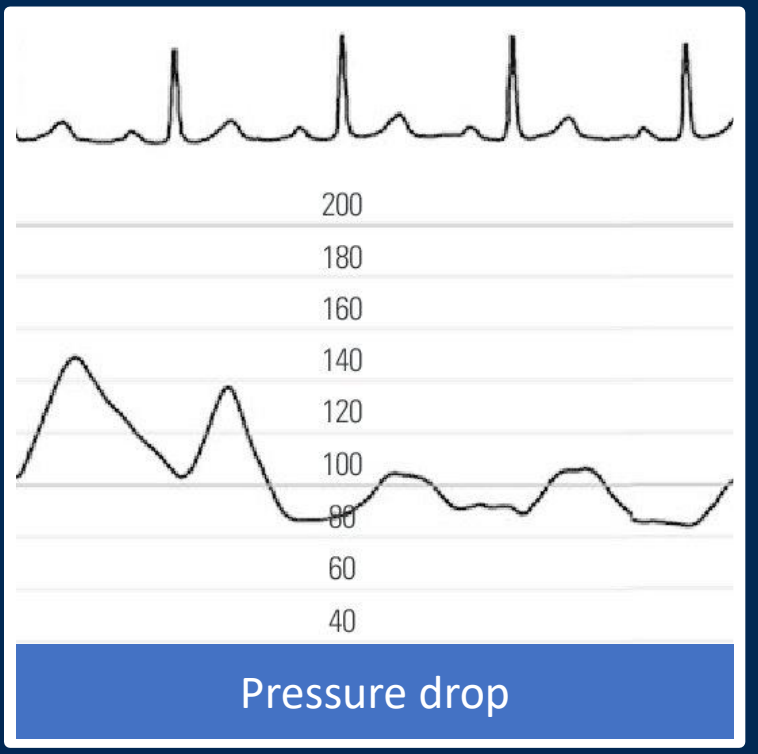
3. Anterograde Wiring

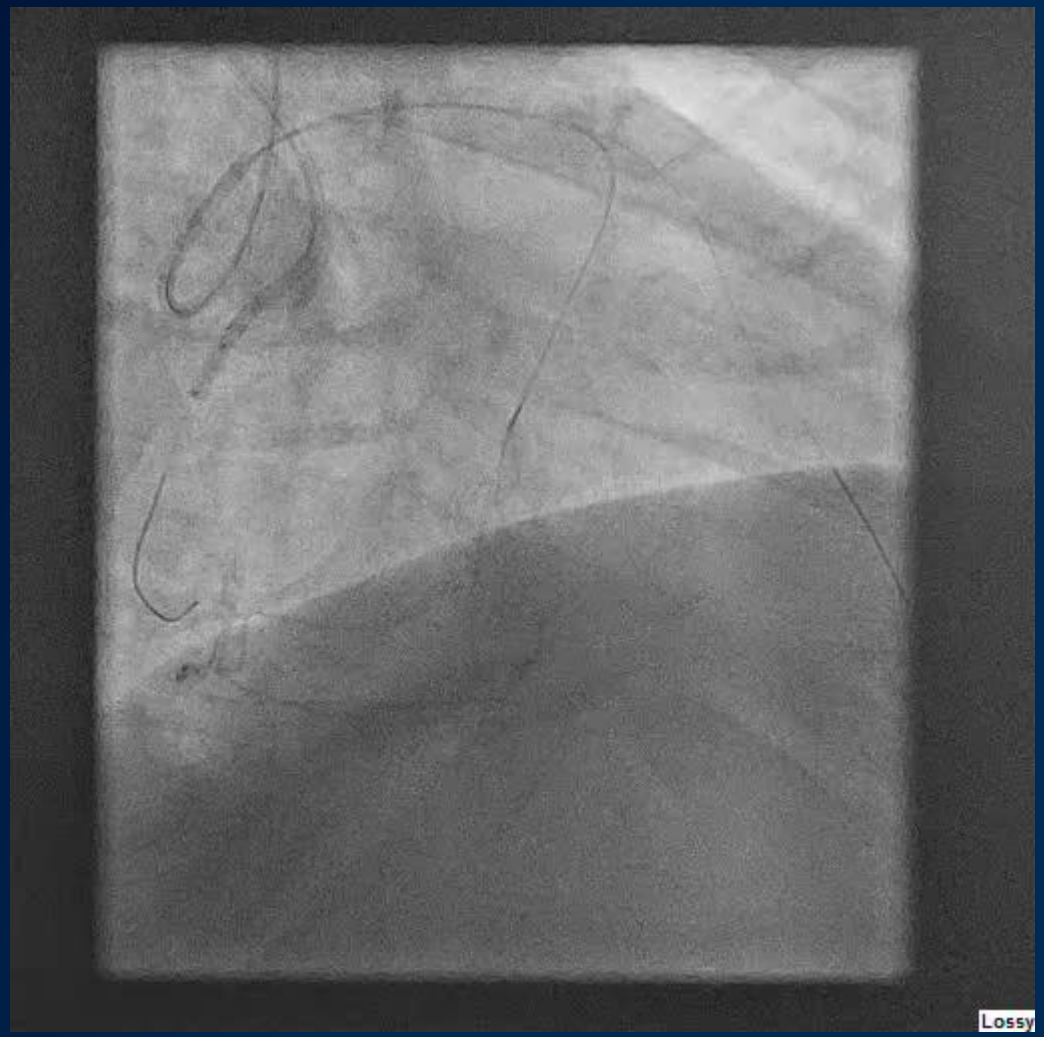

OneView
Series 15
Image 2 / 7
06/09/2022, 09:45
LAO 29°
CRAN 30°
המרכז הרפואי שמיר

6. Trap balloon



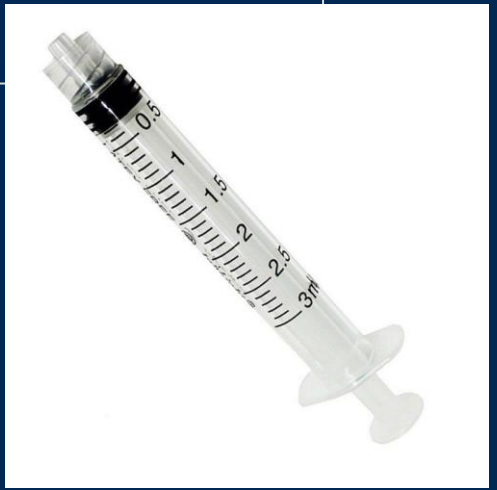


8.Retrograde septal wiring



9. Tip injection.

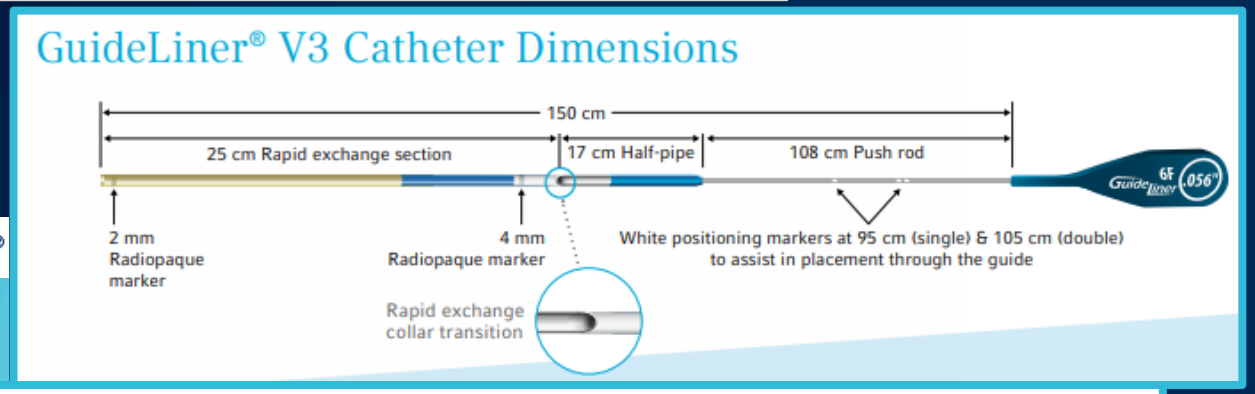
1. 3 cc Luer syringe
2. Neat contrast
3. De-air
4. 2-3 cc injection
5. Flush with saline



10. Septal surfing. Suoh-03.

11. Improving anterograde support. Anchor

12. RCART. Guideliner



Teleflex®
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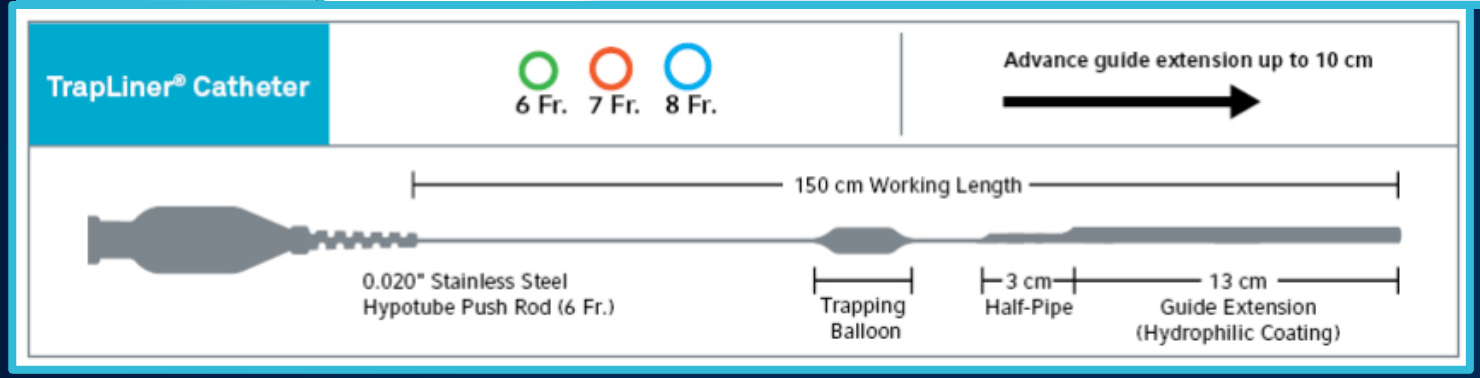
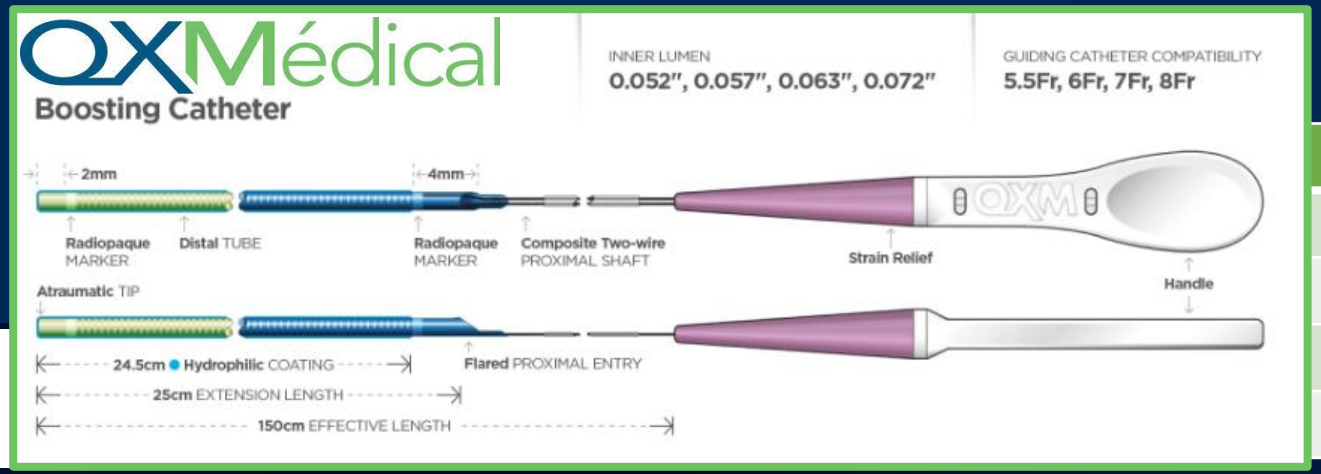


Table I. Guiding extension catheter inner sizes as reported by manufacturers

Guiding extension name	Inner size [mm]
Telescope 6 Fr	1.42
Telescope 7 Fr	1.57
Guideliner 6 Fr	1.42
Guideliner 7 Fr	1.57
Guidon 6 Fr	1.42
Guidon 7 Fr	1.57
Guidezilla 6 Fr	1.45
Guidezilla 7 Fr	1.60

Pawlowski Tomasz, 2021



Fr Size	Inner Ø, mm
5.5F	1.3208
6F	1.4478
7F	1.6002
8F	1.8288

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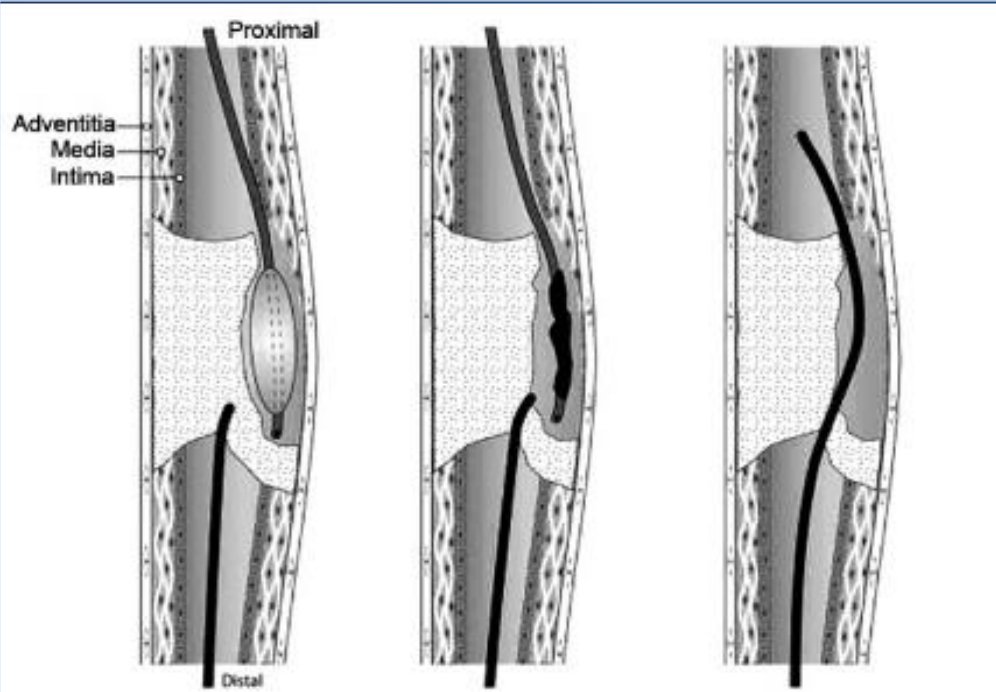
14. 15. RCART. Gaia-2



George Touma, 2015

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14. Retrograde wire dissection

16. Externalization

16. Externalization. RG-3

17. MC withdrawal


OneView
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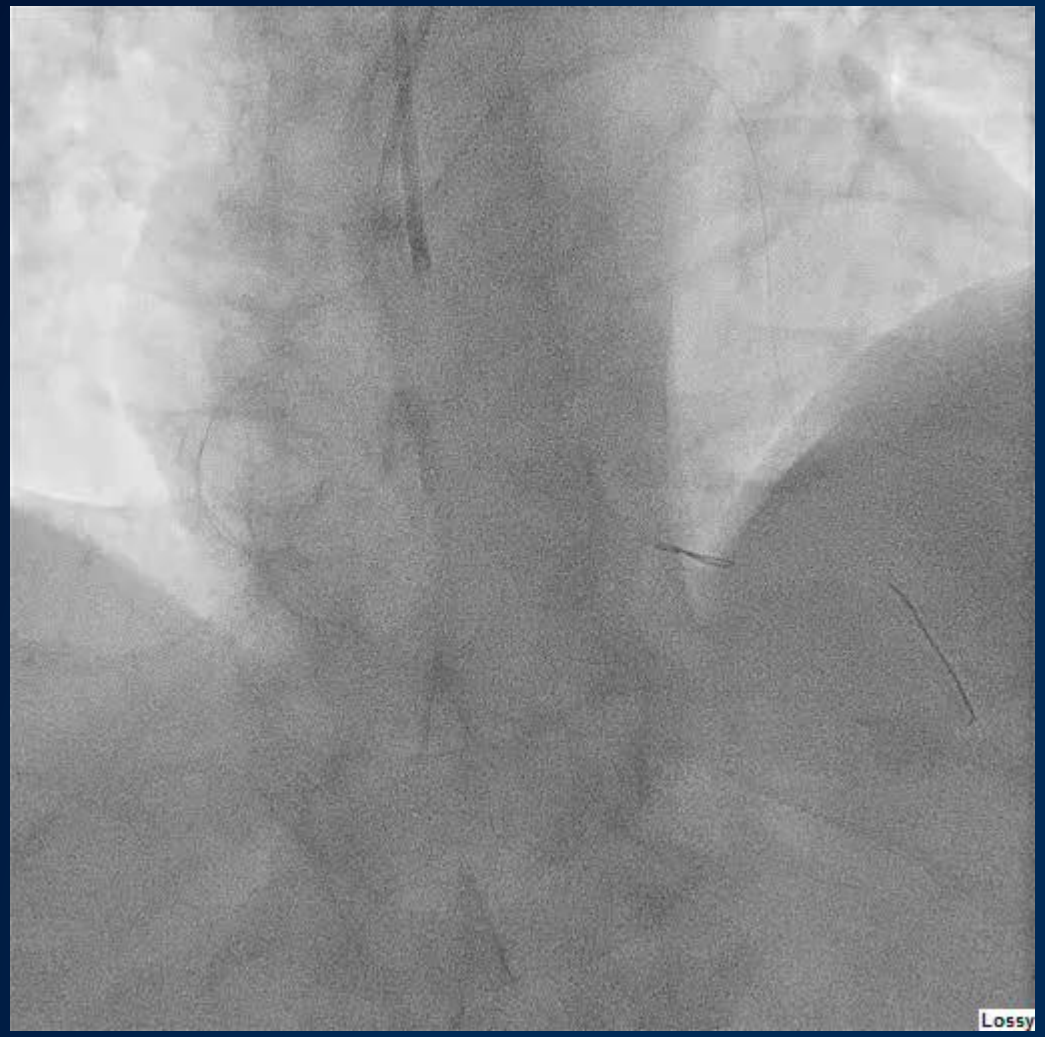
הרפואי
שמיר



Radiation: Fluoro time (min:sec)	70.5 min
Radiation: Total DAP uGy.m2	217.700
Radiation: Air Kerma mGy	2913
* Contrast media ml	280
* Time of First Shot [hours:minutes]	09:21 Now H:M — Time of first coronary CTO setting image
Time of Last Shot [hours:minutes]	11:39 Now H:M
Time to GW cross	91 View equation
Procedure duration	138 View equation
* Peak Troponin Level	51 — Peak postprocedural Tn, ng/L
* Postprocedural Hemoglobin (lowest level)	14.1 — Lowest postprocedural Hb level
* Blood Transfusion (#PC)	○ Yes ◉ No — number of PC transfused — reset
* Peak Creatinine Level	0.85 — Highest postprocedural Cre level
* Need for dyalisis	○ Yes ◉ No — reset
Postprocedural echocardiography	☑ No change from baseline ☐ Left ventricle function deterioration ☐ Right ventricle function deterioration ☐ New wall motion abnormalities ☐ New valvular dysfunction
* Length of Hospital stay	1 days

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THANK YOU

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