Case 4. 0-0-1 Bifurcation PCI

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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

• Abbott Vascular, Boston Scientific, HeartFlow, Inc, MVRx

• Consulting Fees/Honoraria

• Amgen, Abbott Laboratories, Astra-Zeneca, Bayer, Boehringer Ingelheim, GlaxoSmithKline, Berlin Chemie / Menarini, Merck, Pfizer, Roche, Sandoz, Sanofi, Servier Laboratories, Siemens laboratories, Abbott Vascular, Boston Scientific, Biotronik, Biosensors, Cordis,
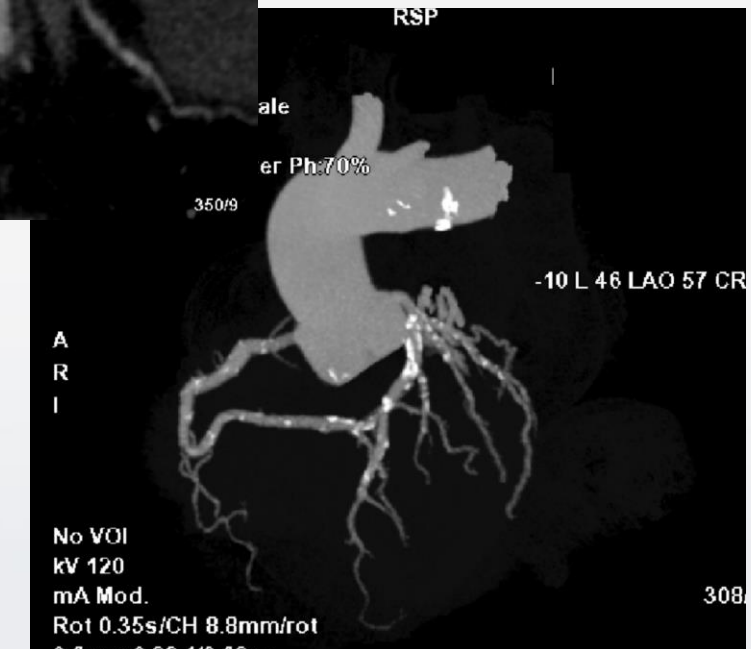
• Stock shareholder:

• CERC

Patent characteristics

- Man 73 years
- **Stable angina class III** with symptom progression last two weeks
- Echocardiography – normal left ventricular and valve function
- LDL 3.09 mmol/l, TH 4.63 mmol/l
- CT angiography for coronary arteries – **very high calcium score, subtotal occlusion of OM1**
- Staged for invasive coronary angiography 29.12.2021

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Coronary angiography and CT reconstructions
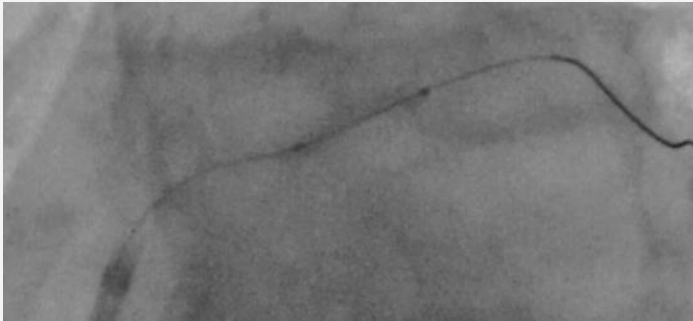
Calcium Scoring index – 282 (mass/mg)
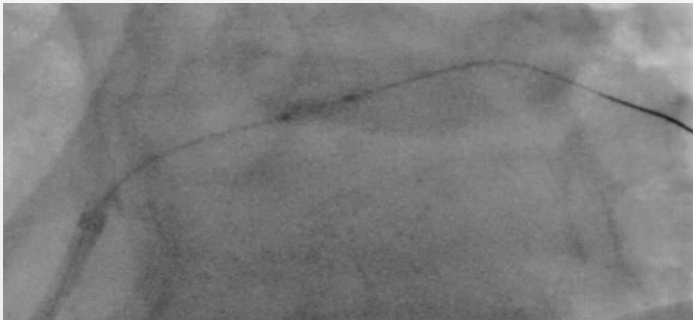Intermediate lesions ~ 50% LAD and RCA, > 95% lesion in OM1

OM 1ˢᵗ plaque pretreatment

- OM 1ˢᵗ brunch was pretreated with SC balloon 3.0 x 12 mm and continued with Cutting Balloon 2.75 x 6 mm for several times

SC 3.0 x 12 mm
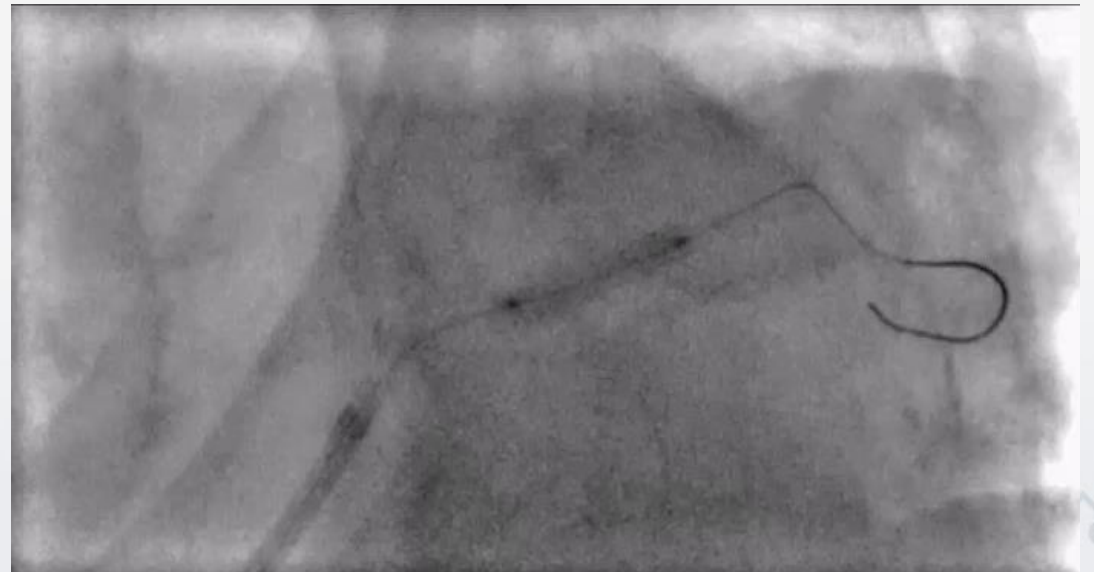

CB 2.75 x 6 mm
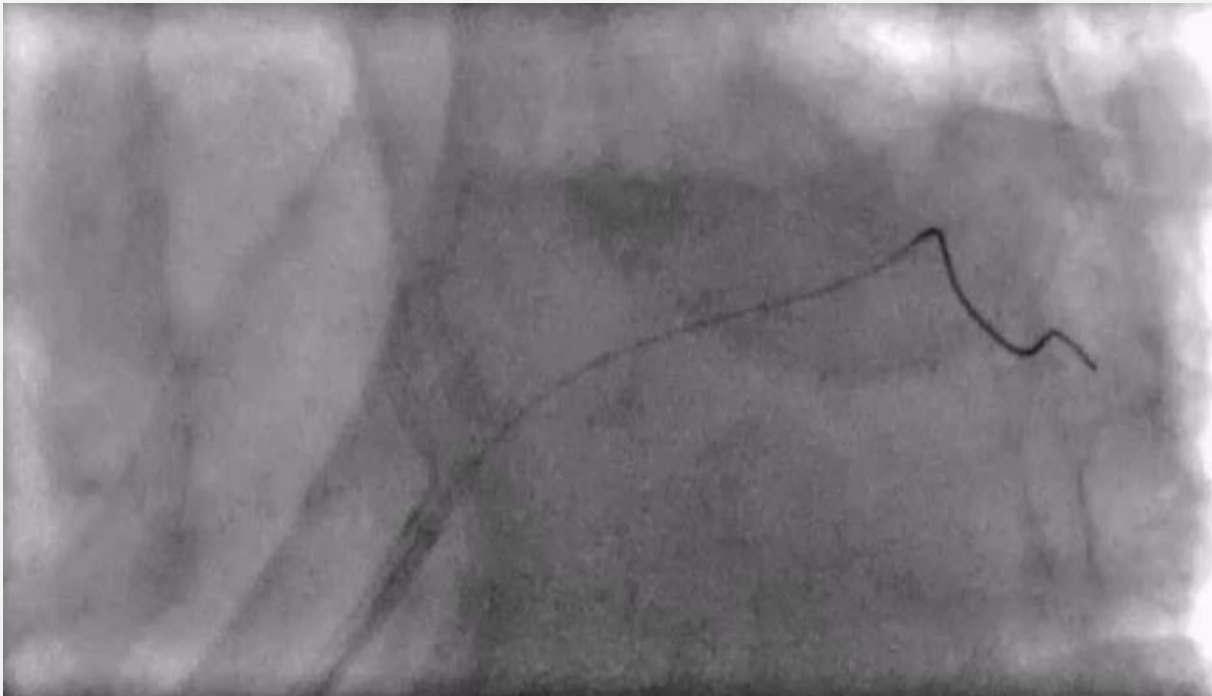

After plaque pretreatment

Bioresorbable stent positioning and implantation

- Bioresorbable stent in OM1st ostial:

- Magmaris 3.0 x 15 mm

- 13 ATM

- Implantation time ~ 30 sec.

Result post stent implantation, following stent optimization therapy with NC balloon
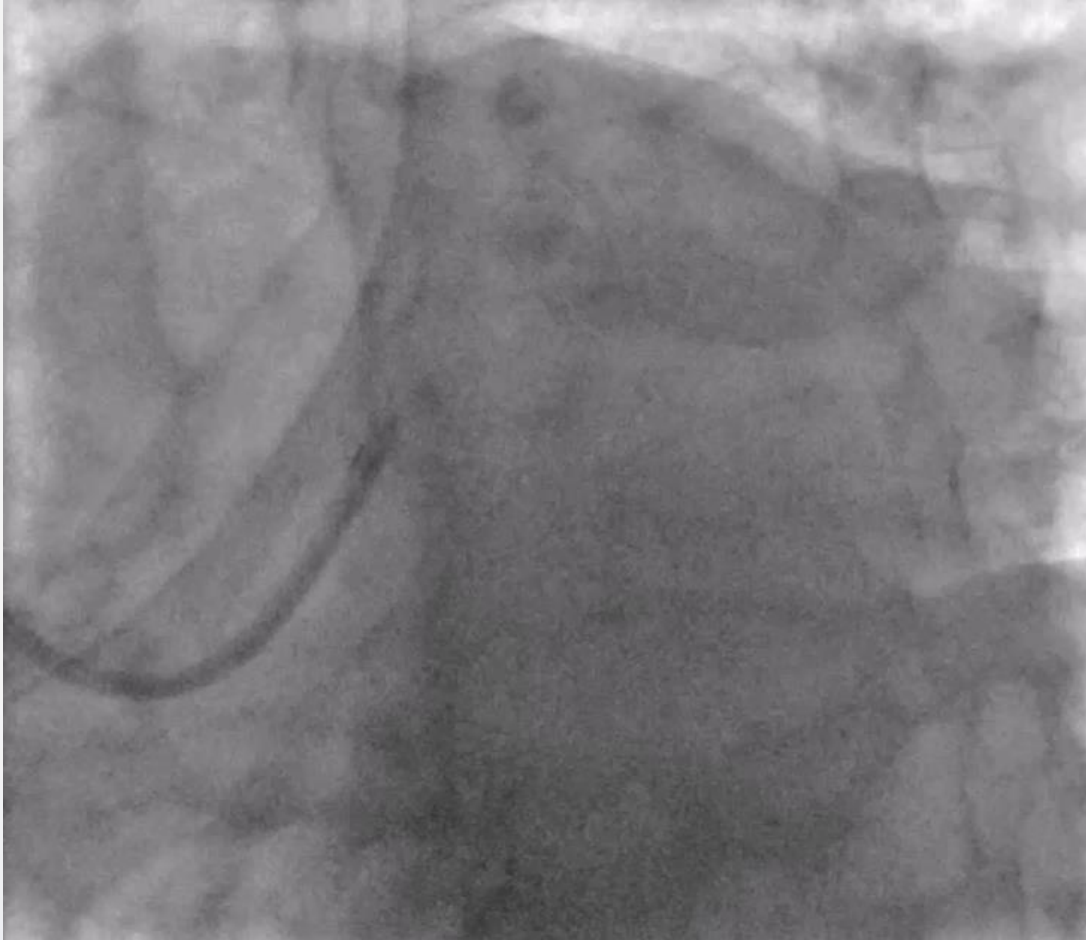
Post stent implantation

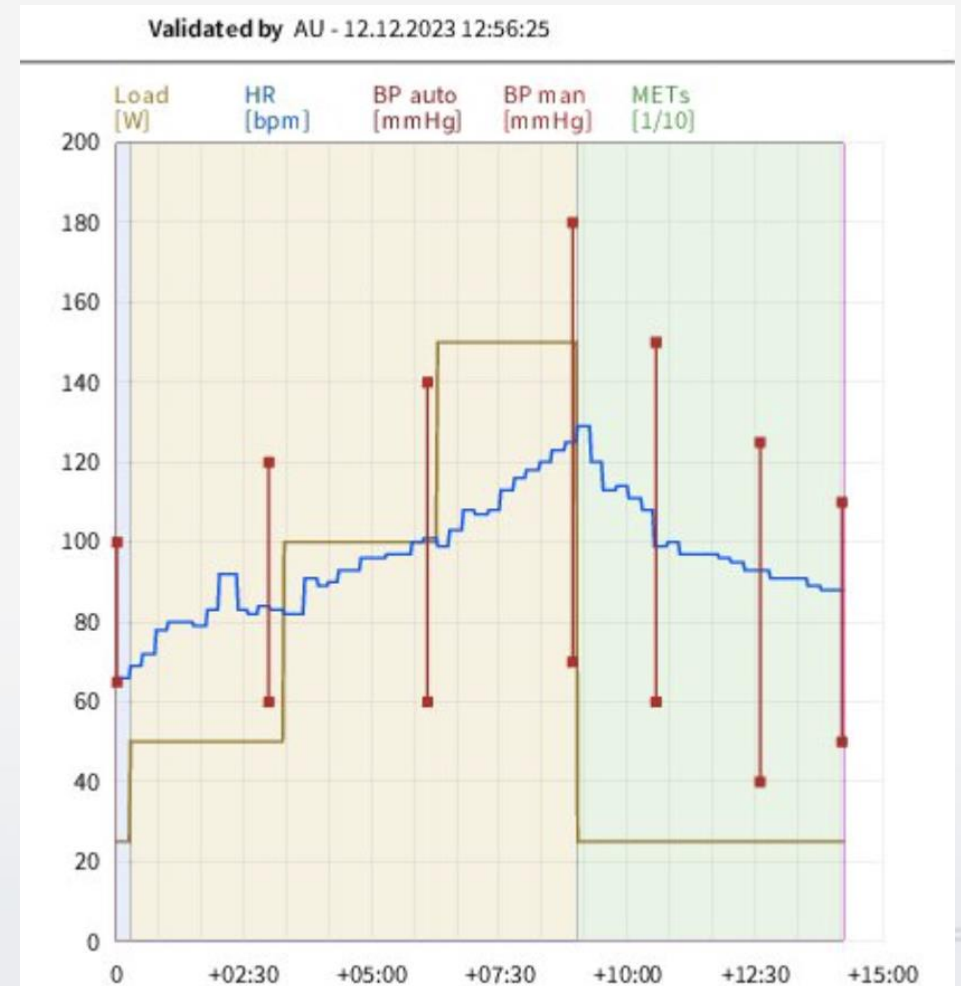NC balloon 3.0 x 12 mm – 15ATM

Final result

Clinical follow-up 27.12.2023

- Patient is angina symptom free

- Active life

- Regular 6 months visits for treadmill test, and cardiologist

- TH 2.5 mmol/l, LDL 0.9 mmol/l

Treadmill test – 150W, 8:44 min./sec.
No ischemic changes in ECG.

Discussion Points

- Optimal medical therapy only
- Provisional DES or two-stent strategy
- DCB/BRS

Conclusion

- Careful and "brave" plaque pretreatment is main goal to achieve good long term follow-up results (do not hesitate use more aggressive tools – cutting/scoring and etc.) if you intend to finish procedure with stent/scaffold. If planned use DCB then tried to avoid dissections.

- Important step is to cover ostial part of bifurcation side brunch – no rush for stent positioning.

- 0-0-1 bifurcation treatment is feasible with BRS and in some point even very recommendable because of "*leave nothing behind*" strategy

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