1088 **Dealing with Refractory RCA Thrombosis and Multivessel Coronary Artery Disease Presenting as Late-Onset NSTEMI With Hemodynamic Instability**

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1. In January 2025, this 56 y/o man visited for first time to CV clinic due to intermittent chest tigthness with radiation to lower jaw and shoulder for days. Past history includes hyperlipidemia and HTN without control (usually had SBP> 170 mmhg).
Past history and CAD risk factors: HTN, hyperlipidemia, age (56), sedentary life
Style, and smoking (quitted for years).

Patient's BH 178.5 cm, BW 81 kg (BMI 25.6)
CXR aortic atherosclerosis change
EKG: NSR, Q wave in leads III AVF consider old MI, no acute ST-T change.
Heart echogram: LVEF=74.1%. Concentric LVH Dilatation of aortic root with atherosclerotic change with mild AR. Moderate MR and mild TR. Mild Diastolic dysfunction related to LVH.
Medications: carvedilol 6.25mg bid, valsartan 160/amlodipine 5 mg qd, aspirin 100mg qd.

2. Three days after at clinic follow up: normalized BP, epigastric fullness
medication shifted to carvedilol 6.25mg bid, valsartan 160, clopidogrel 75mg

3. Two days later, this patient came to our ER due to new onset of dyspnea and chest tightness recurrence.
EKG: precordial lead ST depression and Q wave in III AVF
CXR: pulmonary congesiton
Elevated serum troponin I level, O2 desaturation while in observation at ER, emergent coronary angiography and eventually PCI was arranged with indication .
Intubated with ventilator support and use of temporary pacemaker for transient high degree AV block, IABP was inserted for hemodynamic support due to rapid onset of heart failure.
Coronary angiography:
Access site: Right radial artery: 6 Fr sheath
Right femoral artery: IABP. Right femoral vein: Temporary Pacemaker support
Medication: Heparin 5000u, Isosorbide dinitrate 1mg, 2% lidocaine 1ml, stat,
via intra-radial artery
Others: dual antiplatelets, heparin 4000u stat during procedure , GP IIb IIIa antagonist.
Coronary angiography finding:
Left Main (LM) trunk: patent
Left anterior descending artery (LAD): patent / Diffuse atherosclerosis/ LAD-d1
proximal segment with 70-08% stenosis with calcification / TIMI flow III
Left circumflex artery (LCX): Diffuse atherosclerosis / LCX-m stenosis with
bifurcation lesion Medina 1.1.1 / LCX-m-d multiple focal stenosis 70-90% /
TIMI flow III

Right coronary artery (RCA): Diffuse atherosclerosis / RCA-m total occlusion /
TIMI flow 0
Collateral circulation: LAD-d and septal branches to RCA-PDA-PL branch

PTCA procedure was performed to RCA
Guiding Catheter: 6Fr Kimny catheter. PTCA wire: Sion wire.
Aspiration thrombectomy catheter was used for multiple times
PTCA balloon dilatation:
2.0x20 and 2.5x20 NC balloon, dilatation with 6-12 atm/ 10-30 seconds multiple
times, residual stenosis: >70%, TIMI flow 1-2
Thrombosis progressed rapidly despite using Aspiration thrombectomy. Intracoronary urokinase 60000 iu x 2 times, and additional dose of heparin 4000u.
GP IIb IIIa antagonist (Tirofiban inj 12.5mg/50ml/vial) iv infusion was ordered.
PCI procedure was discontinued, as mentioned interventions failed to remove the thrombosis within RCA.

Transferred to ICU: Removal of TPM and IABP three days later, and extubated a day after. Transferred to ward. He was discharged 10 days after the primary event.

Medications at discharge: Aspirin 100mg qd, Ticagleror 90mg bid, Bisoprolol 1.25mg bid, Valsartan 40mg qd , Atorvastatin 20mg, Furosemide 40mg qd , and Warfarin 5 mg qd.

Target INR 2-3
2025/01/27 PT 61.0, PT CONTROL 11.1, ISI 1.03, INR 5.78 (5mg), reduce to 3.5 mg.
2025/02/10 PT 53.2, PT control 11.1, ISI 1.03, INR 5.02, with 3.5 mg, reduce to 2 mg.
2025/02/24 PT 20.0, PT control 11.1, ISI 1.03, INR 1.83 with 2 mg, switch to 2.5mg.
2025/03/24 PT 22.2, PT control 11.1, ISI 1.03, INR 2.04 (2.5mg)
2025/6/25 PT 25.4, PT control 10.6, ISI 1.05, INR 2.50 (2.5mg)

4. On June 2025
ANGIOGRAPHY F/U six months later.
Left Main (LM) trunk: patent
Left anterior descending artery (LAD): patent / LAD-D1 proximal segment 70%
stenosis
Left circumflex artery (LCX): diffuse atherosclerosis / LCXp-to LCX-m
tubular 80% stenosis in bifurcation to OM-1 ostium Medina 1.1.1 lesion/ LCX-m
focal 90% stenosis with calcification / LCX-d 50% tubular stenosis
Right coronary artery (RCA): diffuse atherosclerosis / RCA-m-d 80-90% long
lesion stenosis / slow flow
Ramus intermedious: diffuse atherosclerosis / proximal segment 70% stenosis
stenosis
Collateral circulation: LAD-d to RCA-d

PTCA procedure was performed to LCX-RCA

Guiding Catheter: Kmny catheter. PTCA wire: Sion

To RCA lesions:

PTCA balloon dilatation from RCA-d to RCA-m: 2.75x20 NC Balloon, dilatation with 6-20 atm/ 30-60 seconds, minimal residual stenosis. No dissection, TIMI flow III

To LCX lesions:

PTCA balloon dilatation to LCX-m critial lesions and to OM1 ostium lesion: 2.0x20 NC Balloon, dilatation with 18 atm/ 30-60 seconds. Residual stenosis on OM1 was <50 %, No dissection, TIMI flow III

PTCA balloon dilatation to LCX-m-p critical lesions: 2.75x20 NC Balloon, dilatation with 12-20 atm/ 30-60 seconds, , residual stenosis was <50 %. No dissection, TIMI flow III

Stent deployment: Not indicated as residual stenosis was not significant, No major dissection, TIMI flow III.

Complications: No immediate complications

Post procedure, this patient became fully asymptomatic.