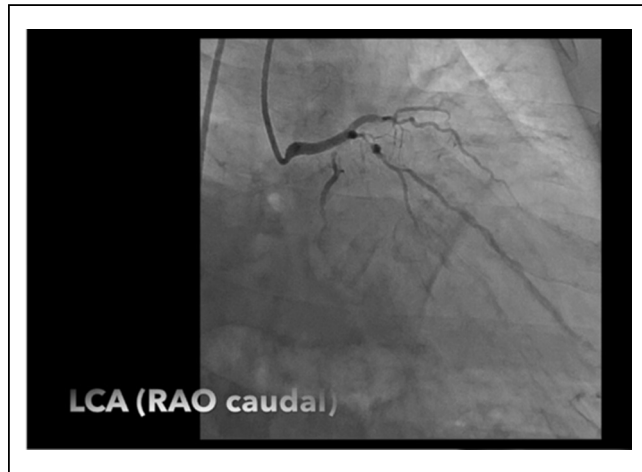
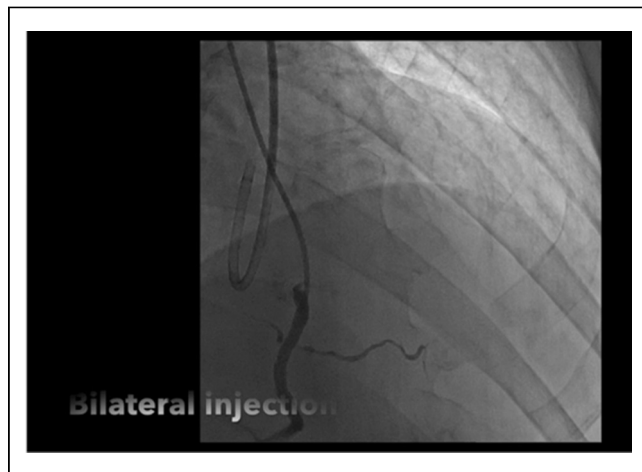


proximal LAD. The blood flow of distal LAD was provided from the RCA and bridge collateral.



**[INTERVENTIONAL MANAGEMENT]**

**Procedural step.** First, angioplasty of the RCA was performed, and three drug-eluting stents were implanted in the proximal to mid-part of the RCA. Next, percutaneous coronary intervention to the chronic total occlusion in the proximal LAD was performed. The GAIA first wire with the support of Corsair catheter was advanced. From the RAO cranial view, the wire tip appeared to be in the good direction. However, the rotational angiogram revealed the discrepancy between the wire tip and the distal target from the RAO caudal view. The rotating plane was determined by the aid of rotational coronary CT angiogram. Parallel wire technique was performed using a GAIA second guide-wire. The GAIA second was advanced upward of the first wire from the RAO caudal view, although in the similar direction from the RAO cranial view. The second wire successfully got into the distal target. After dilating the occlusion by IKAZUCHI 2.0mm balloon, a drug-eluting stent (Resolute Integrity 2.5x26mm) was implanted and the procedure was completed. Four month after the procedure, good patency of the LAD was confirmed by coronary angiogram and the cardiac function became improved.



**TCTAP C-081**  
**CTO Lesion with Strong Bend Using Enhanced Hydrophilic Coating Floppy Guidewire from Retrograde Approach**

Shingo Hosogi,<sup>1</sup> Takashi Nishimoto,<sup>1</sup> Hiroaki Matsumi<sup>1</sup>  
<sup>1</sup>Kochi Health Sciences Center, Japan

**[CLINICAL INFORMATION]**

**Patient initials or identifier number.** AN

**Relevant clinical history and physical exam.** Case was 56 years old, male.

In 6/1/2014, pre-operative cardiac echo for bladder cancer revealed LV dysfunction (EF38%) and asynergy at inferior and posterior wall.

In 7/1/2014, CAG showed chronic total occlusion (CTO) lesion at RCA#3.

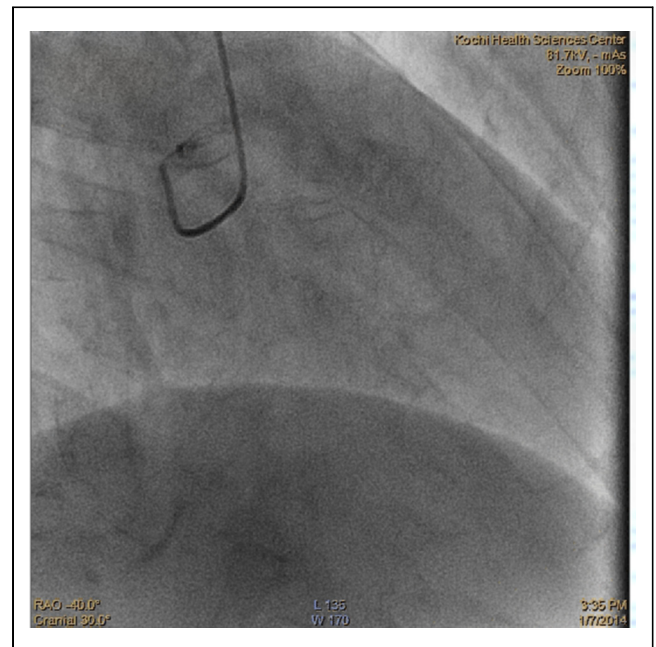
In 8/1/2014, successful and curable operation was done for bladder cancer.

In 20/2/2014, PCI was performed for RCA#2CTO

His coronary risk factors were hypertension and past smoker.

**Relevant catheterization findings.**

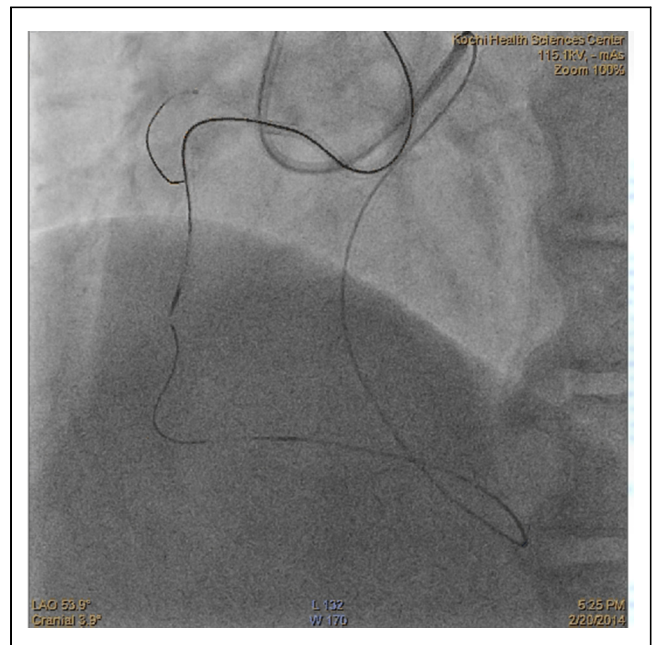
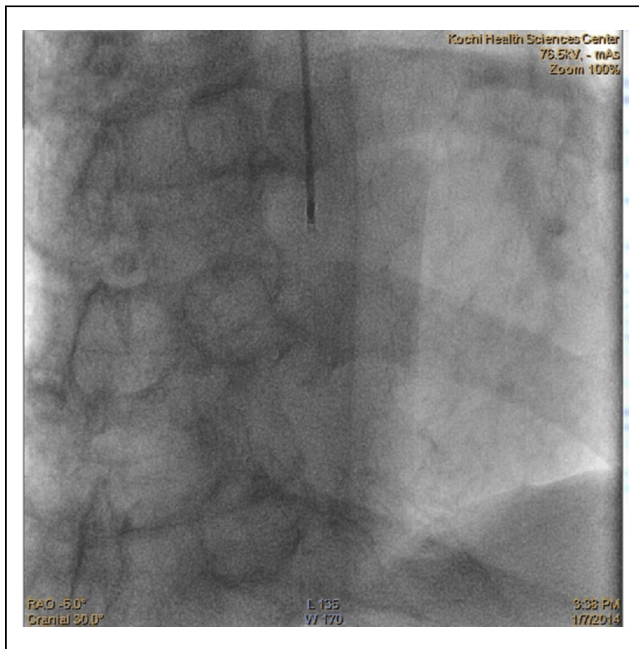
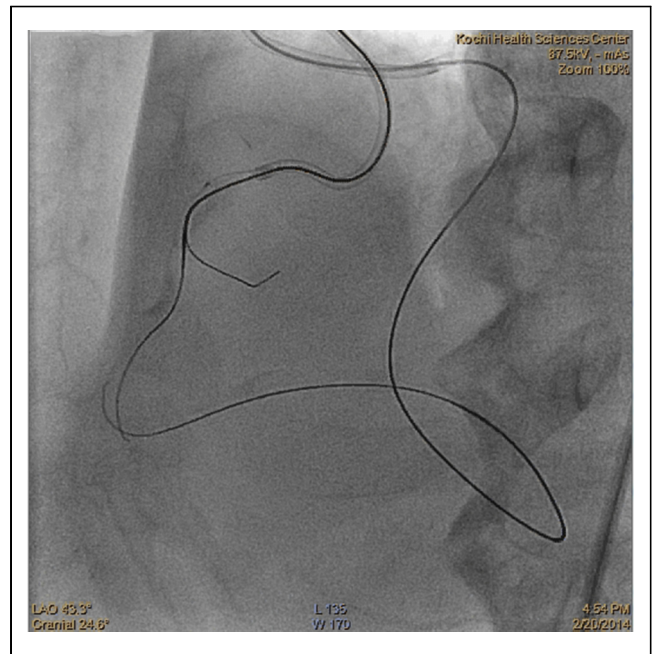
- ① Long CTO lesion from RCA#2 to RCA#3
- ② Visible micro-channel from the point of RV branch bifurcation with strong bend (not sure true or not)
- ③ Promising collateral channel via septal branch for retrograde approach
- ④ CTO exit is Abrupt type from retrograde approach



**Case Summary.** In the procedure of CTO intervention, parallel wire technique is one of the essential skills to improve antegrade success rate. Rotational angiogram is necessary to visualize the discrepancy between the first wire and the distal target. However, the ideal rotating plane is sometimes difficult to determine. Rotational coronary CT angiogram gives us helpful information about the ideal plane for the rotational angiogram. In this case, CTO in the proximal LAD was successfully treated with the aid of rotational coronary CT angiogram.



3. Retrograde Conquest pro 12g penetrated the CTO exit point, and then was changed to Gaia 2nd.
4. Bi-grade Gaia 2nd were touched each other at the strong bend point at RCA#2, however both GW could not follow the strong bend.
5. Retrograde Runthrough hypercoat which was a floppy GW with enhanced hydrophilic coating could successfully follow the strong bend and entered into the antegrade MC at RCA#2.
6. Retrograde GW was changed to antegrade normal floppy GW by using Rendezvous method.
7. CTO lesion and micro-channel were pre-dilated by Sapphire2 balloon 1.5x10 mm.
8. IVUS showed that GW was passing through the true lumen or intimal plaque.
9. Good dilatation and TIMI3 flow were obtained after three Xience xpediton stents deployment from RCA#4AV to RCA#1.



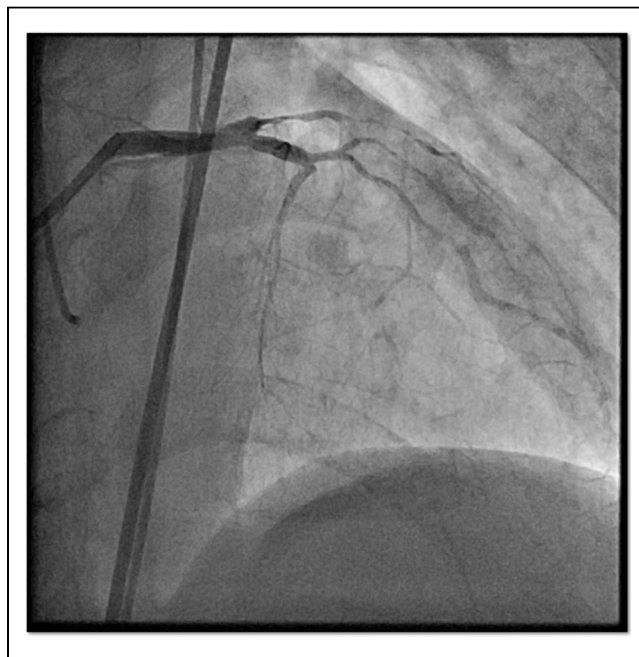
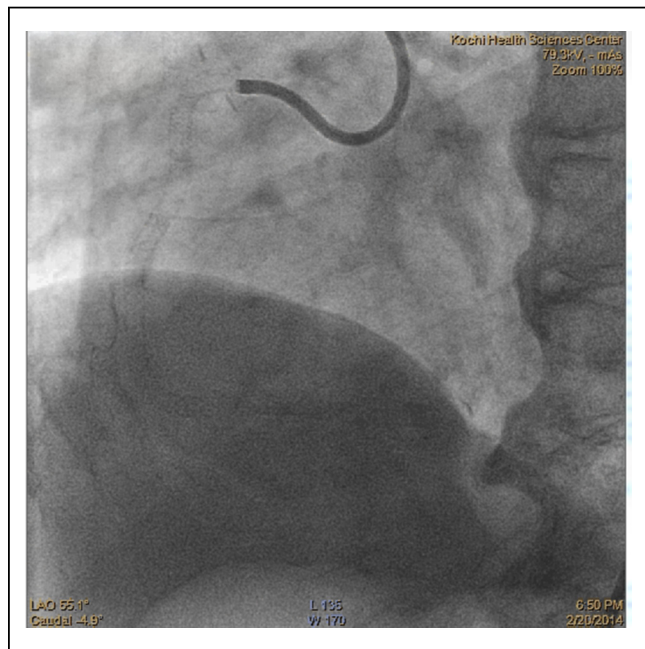
**[INTERVENTIONAL MANAGEMENT]**

**Procedural step.** PCI system: 7F sheath from rt. femoral and rt. radial artery, Guiding Catheter(GC): AL1ST 7F(Brite-tip) & SL4.0 7F(Launcher)

Antegrade approach: Micro-catheter (MC): Corsair135cm, Guidewire (GW): Sion Black, X-treme XTA, Gaia 1st, Gaia 2nd

Retrograde approach: MC: Corsair 150 cm, GW: Sion, Miracle neo 3g, Conquest Pro12g, Gaia 2nd, Runthrough hypercoat

1. First, retrograde Sion was successfully advanced to RCA#4PD. However, retrograde Sion and Miracle neo3g never penetrated the CTO exit at RCA#3.
2. Antegrade Sion black and Gaia2nd were successfully inserted into micro channel at RCA#3, but could not reach the RCA#4.



**Case Summary.** We experienced a CTO case with strong bend followed only by floppy guidewire with enhanced hydrophilic coating from retrograde approach.

The right guidewire has to be selected in the right place especially in the CTO PCI.

**TCTAP C-082**

**Guideliner Is Useful for Percutaneous Coronary Intervention for Chronic Total Occlusion with Retrograde Approach via the Long Epicardial Channel**

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<sup>1</sup>Nagaoka Red Cross hospital, Japan

**[CLINICAL INFORMATION]**

**Patient initials or identifier number.** KM

**Relevant clinical history and physical exam.** This is 50's gentleman known history of STEMI, Diabetes mellitus, hypertension and dyslipidemia. He underwent PCI for inferior acute myocardial infarction in 2006. BMS (Driver 4.0/15 and Vision 4.0/23) were implanted to mid portion of RCA. And he underwent PCI for the stenosis of proximal portion of LCX in 2006. DES (Cypher 3.4/18) was implanted to proximal portion of LCX. He admitted to our hospital due to acute pulmonary edema on July 2014. After his condition got stabilized, we performed CAG.

**Relevant test results prior to catheterization.** Troponin T was negative. CK 122 IU/L, CKMB 11 IU/L, HbA1c 9.8%, LDL-C 7 mg/dL.

His ECG showed normal sinus rhythm and the intraventricular conduct defect.

**Relevant catheterization findings.** We performed coronary angiogram after he got stabilization. Coronary angiogram showed total occlusion in stent of proximal portion of LCX and total occlusion of mid-LAD. LAD was filled through the collateral from RCA via septal branch and from diagonal branch. LCX was filled from RCA.

**[INTERVENTIONAL MANAGEMENT]**

**Procedural step.** At first, we implanted 1 stent at LCX. Next, we started PCI to LAD-CTO. GC: Hyperion SPB 3.5SH 100cm from right femoral artery. GW: GAIA 1st supported by Corsair could not enter CTO. GAIA 2nd advanced into CTO but into false lumen. We attempted tip injection from diagonal branch by Finecross GT. Diagonal branch connected to distal LAD. GC: Hyperion SAL 1.0SH 100cm from left femoral artery engaged to LCA (Double GC). GW: SION supported by 150cm Corsair advanced to diagonal branch. But SION cannot advance at distal of diagonal branch. We exchanged GW from SION to SION black. SION black could advance to the exit of CTO. Retrograde corsair advanced to mid portion of LAD. Antegrade GW: Conquest Pro 9g supported by 135cm Corsair advanced into CTO. Retrograde GW: GAIA 2nd supported by 150cm Corsair advanced into CTO. We attempted the R-CART with 2.75mm balloon. Retrograde GAIA 2nd could advance to proximal true lumen. Retrograde corsair was too short to get into antegrade GC because retrograde GC was 100cm and epicardial route was long. We advanced Guideliner to the just proximal of CTO entry from antegrade. Retrograde GW could easily get into guideliner. We trapped retrograde GW in Guideliner and advanced retrograde corsair into guideliner. We exchanged retrograde GW from GAIA to RG3. We could build up externalization. Antegrade corsair on RG3 advanced to distal of LAD. We exchange antegrade GW from RG3 to Fielder FC. We implanted 2 EES at LAD.