Case Summary:
In summary, we succeeded the PCI with the Reverse CART technique to the diffuse long RCA CTO lesion for 20 years. The coronary artery hematoma was made by the tip injection into the subintimal space. The ruptured balloon inflation into the subintimal tracking space after the Reverse CART technique made the coronary artery hematoma bigger.

In conclusion, we should check the back flow from the micro catheter before the tip injection. We should avoid the trapping balloon technique at the site of the guiding catheter side hall.

TCTAP C-080
Primary Angioplasty in a Single Surviving Vessel
Fatema Begum
United Hospital Limited, Bangladesh

[Clinical Information]
Patient initials or identifier number: 178297

Relevant clinical history and physical exam:
72 years old, Male, Diabetic, Hypertensive, known CKD. Presented with severe chest pain, shortness of breath of 08 hours duration. He was suffering from on and off chest pain treated another hospital as NSTEMI and treated with LMWH 03 days prior to attain our Hospital. During admission he was not able to lie flat due to shortness of breath, Pulse 110/min, BP-120/80mm Hg, Bilateral basal creps upto mid zone. We planned to do primary angioplasty.

Relevant test results prior to catheterization:
ECG-ST elevation on LI, LII, LIII, AVF and ST depression on leads V2-V6
Echo-inferior wall grossly hypokinetic and anterior wall hypokinetic, LVEF-40%
S.Creatinine 1.84mg%

Relevant catheterization findings:
Left main Coronary artery-60-70% stenosis on distal segment
Left Anterior Descending Artery-100% occluded from ostium
Left Circumflex Artery -100% occluded from ostium
Right Coronary Artery-95% stenosis from proximal segment. Giving retrograde filling to left system

[Interventional Management]
Procedural step:
Primary angioplasty to Right Coronary Artery
Guiding Catheter-JR-4, 7F
Wire-BMW 0.014, Boppy
Balloon-2.5X15mm, Predilatation, 4.0X10mm for post dilatation
Stent-Resolute integrity-3.5X26mm
GP IIb-IIIa receptor Blockers after the procedure
07 days after primary angioplasty-Angioplasty LM to LAD was done
Guiding Catheter-XB3, 7F
Wire-Fielder XT-0.009, BMW 0.014
Micro catheter for wire negotiation
Balloon-1.5X15mm, 2.0X20mm both for predilatation. 3.5X15mm for post dilatation
Stent-Biomatrix flex 3.0X33mm

TCTAP C-081
Retrograde Operation on Acute Occlusion Caused by Dissection at Ostial of RCA
Yang Cao, Shu Sen-Yang
The First Affiliated Hospital of Harbin Medical University, China

[Clinical Information]
Patient initials or identifier number: WJR

Relevant clinical history and physical exam:
Male, 49y
HT 5y, DM 2y
Complaint of paroxysmal chest pain under physical work for 1m, aggravated for 1 w.

Relevant test results prior to catheterization:
ECG: sinus rhythm, negative T wave in lead III
Glu: 7.76 mmol/L
TC: 3.16 mmol/L
TNI(-), CKMB(-)

Relevant catheterization findings:
Angiogram shows good retrograde from S2 to distal RCA.
LCX was semi-occlusion and we believe solve LCX can make the following procedure safe.
LAD: proximal and middle diffused stenosis
LCX: subtotal occlusion
Mid-RCA: total occlusion
SYNTAX score: 23, with RCA totally occlusion.
We decide to treat RCA first

[Interventional Management]
Procedural step:
First time PCI
1. GC: AL0.75+GW: Miracle 3 through the occlusion to distal RCA. Fineneck could not go through the occlusion. Trek 1, 25x8mm could not get across the occlusion, Tonus went through the lesion successfully.
2. Ryujin 2.5 × 15mm dilate mid-RCA. Exchange GW to NS with MC. Excel 2.75x28mm stent was implanted at mid-RCA.
3. Kongou 2.75x15mm post-dilate. Angiography showed suspicious dissection in the ostium.
4. We adjust the GW and GC to try to make a better angiogram but the GW lost and RCA: Acute coronary occlusion!
5. We tried to put GW from antegrade to true lumen of the artery with Run-through and Pilot 50, but all failed.
6. Further treatment:
The right coronary artery was completely occluded at first, so when the artery occluded again the patient had no obvious discomfort.
UFG (1d after operation: EF: 45%, interior diameter of atrium and ventricular is normal. The patient was closely observed and we decided to continue the operation after one month.

Second time PCI
Runthrough, Pilot 50 and Miracle3 could not get across the occlusion!
2. Angiogram shows good retrograde from S2 to distal RCA. So we decide to try to use retrograde technique to solve the occlusion at ostial RCA.
3. LCX was semi-occlusion and we believe solve LCX is easy and is sure to make the following procedure safe.
4. GC: BL3.0 GW: Runthrough+Ryujin 2.5x20mm predilated mid-LCA.
5. Helios 3.5 × 28mm stent was implanted at mid-LCA.
6. GC: BL3.0+GW: pilot 50 from antigrade to try to enter the true lumen, Pilot 50 with Finecross in S2. Then we exchanged pilot50 for sion to use retrograde technique. Sion advanced into the distal of right coronary from retrograde. Then in order to get across the stenosis we exchanged sion for Pilot 50 from retrograde way.
7. Retrograde wire entered the aorta, rather than GC.
8. Analysis
GC with strong back up force (AL 0.75) is easily cause dissection at the ostial RCA. Due to the GW so the was no acute occlusion. When the GW was lost, the floating intima block the vessel under the blood flow and cause the acute occlusion. We tried many times to use GC to enter from antegrade to enter the true lumen. Retrograde wire can not enter the GW, we use snare to catch the wire. Exchange the wire to PT2(300CM) so as to pull the wire out.
9. Retrograde wire (PT2) entered the right heart catheter. We pulled out PT2 long enough to advance into GC.
10. Ryujin 1.5 × 15mm predilated proximal of RCA. Ryujin 2.5 × 15mm predilated proximal of RCA.
11. Firebird 3.0×33mm stent was implanted at RCA proximal.
12. Helios 3.0×33mm stent was implanted at mid-distal RCA. Helios 2.75×22mm stent was implanted at distal RCA; Kongou 3.5×12 mm post-dialation.
13. Take home message
It is necessary for chronic occlusion lesion to choose GC with strong back up force, but should pay attention to avoid coronary artery injury. Once the GC with strong back up force injure the coronary artery, if there had been no coronary ostial occlusion, adjunct GC for coaxial and gently shift the GW to the distal coronary artery. Occlusion at the ostial is difficult to allow the GW enter the true lumen, the reverse PCI or CABG may be considered.

Case Summary:
It is necessary for chronic occlusion lesion to choose GC with strong back up force, but should pay attention to avoid coronary artery injury. Once the GC with strong back up force injure the coronary artery, if there had been no coronary ostial occlusion, adjunct GC for coaxial and gently shift the GW to the distal coronary artery. Occlusion at the ostial is difficult to allow the GW enter the true lumen, the reverse PCI or CABG may be considered.

TCTAP C-082
Large Interventricular Septal Hematoma After Retrograde Intervention via the Ipsilateral Intraseptal Collateral for a Chronic Total Occlusion of a Left Anterior Descending Coronary Artery
Mei-Ling Chen, Sing-Kai Chuo, Ji-Hung Wang
Hualien Tzu Chi Medical Center, Taiwan

[Clinical Information]
Patient initials or identifier number: J.R.X

Relevant clinical history and physical exam:
53-year-old man, former smoker, with hyperlipidemia who was presented with CCS III angina for 3 months. Treadmill exercise test revealed high risk Duke score (~27). Framingham coronary heart disease risk score reveal 10% of 10 yrs CHD risk. His angina persisted even under max medical treatment. He was admitted for coronary angiogram. Physical exam were unremarkable. CAG showed triple vessel disease with CTO of LAD, LCX and RCA. Patient refused CABG and underwent PCI to RCA and LAD with successful stenting. But complication of large interventricular septal hematoma occurred which was managed conservatively successfully.

Relevant test results prior to catheterization:
ECG: Sinus bradycardia with old inferior wall infarction.
Transthoracic echocardiogram: Preserved LV systolic function (LVEF: 65%) without LV wall motion abnormality.