Case Summary:
60 years old male gentleman, known diabetic, normotensive, history of effort dyspnea and angina class II x 6 months. ECG: Poor R Wave Progression in anterior leads. 

ECHO: Severe LV dysfunction. Thallium: Viable myocardium +. CAG; RCA, LCX and LMS: Mid to distal LMS

Relevant clinical history and physical exam:
This was a 65 year-old gentleman, with diabetes, hypertension and benign prostate hypertrophy. He was admitted in March 2013, for acute coronary syndrome. Electrocardiogram showed transient ST elevation over inferior leads. He had poor insight towards his own illness. He strongly requested discharge after medical treatment, and refused any cardiac intervention. He was however admitted again in May 2013, for unstable angina. He was given medical treatment, and was stabilized. He agreed for intervention this time, and cardiac catheterization was arranged in August 2013.

Relevant test results prior to catheterization:
Blood test and electrocardiogram before catheterization was unremarkable.

Relevant catheterization findings:
Right dominant circulation
LMS: Mid to distal LMS ~40% stenosis
LAD: Proximal LAD ~70% stenosis. Ostial part of a large D1 ~70% stenosis, with retrograde supply to PDA and PL branch
LCX: Proximal LCX ~60% stenosis. Mid to distal LCX ~60% stenosis
RCA: Proximal RCA 50% tubular lesion. Mid to distal diffuse disease with total occlusion at distal RCA

Conclusion: Triple vessel disease with RCA total occlusion as a culprit
Plan: Patient refused CABG. For PCI to RCA and then staged PCI to LMLAD/LCX

TCTAP C-116
Deformation of Everolimus-eluting Stent Immediately After Stenting: A Case Report
Kensaku Wada, Akihiro Kawamura
Kawachi General Hospital, Japan

[Clinical Information]
Patient initials or identifier number:
WONG SW

[Interventional Management]
Procedural step:
Case: A Challenging Case of Small Vessel Chronic Total Occlusion
Yam Hong Wong, Kok Ying-Lung, Yam Ping-Wa
Tuen Mun Hospital, Hong Kong, China

TCTAP C-117
A Challenging Case of Small Vessel Chronic Total Occlusion
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[Clinical Information]
Patient initials or identifier number:
WONG SW

[Interventional Management]
Procedural step:
Significant vessel recoil after angioplasty
Impact Falcon (DEB) to distal RCA at 7 atm
Multi-Link Mini Vision 2.0/23 deployed at distal RCA at 8 atm
Stent balloon pulled back and reinflated at 14 atm
Another Impact Falcon (DEB) to mid RCA at 7 atm
Multi-Link 8 LL 2.5/38 deployed to mid RCA at 10 atm, overlapping with the distal RCA stent
Post-stent high pressure angioplasty with Trek NC 2.5/15 at 12 to 16 atm
Post intervention angiographic result was good, without stent edge dissection

Immediate angiographic result was good. And patient recovered well after PCI to RCA. Anginal symptoms improved very significantly from class III to class I. Restudy coronary angiogram 8 weeks later, during staged PCI for the left system, showed widely patent stents in mid and distal RCA. After the emergence of drug eluting balloon, it has opened up some new frontiers which intervention cardiologist cannot set foot into. Studies has illustrated its many successful applications, such as PCI of small side branches and in-stent restenosis. Our case demonstrated that DEB combined with BMS as can be used as a new tool for treating CTO lesions with diffuse disease with a small calibre.

**Case Summary:**
This case illustrated a difficult scenario in interventional cardiology: successfully wired a CTO lesion, but subsequent angiogram revealed a very diffusely diseased vessel with a small calibre.

Wiring of the lesion in this above patient with antegrade approach was successful. But despite repeated dilation, angiogram revealed a dominant RCA but with a very small calibre and very diffuse disease till the very distal part of RCA. Vessel size was estimated to be around 2.0mm at most. Significant recoiling of the vessel was noted. Due to unavailability of DES of such a small calibre, options at this point of time were limited.

Strategical options included:

a) POBA with prolong balloon inflation to m-dRCA, hoping the vessel will not recoil again;
b) PTCA/S to m-dRCA with DES of 2.5mm, with a risk of oversizing and stent edge dissection;
c) PTCA/S to m-dRCA with BMS, with a risk of early ISR due to small vessel;
d) PTCA/S to m-dRCA with BMS, after DEB.

After careful consideration, option D was chosen.