bars. A “Sprinter Legend” balloon (4.0mm/20mm) was used to dilate the pLCX with 10 bars. A “Resolute Integrity” stent (4.0mm/34mm) was deployed in the pLCX-LM with 14 bars. A “Resolute Integrity” stent (4.0mm/38mm) was deployed in the pLAD-LM with 12 bars. A “Hiryu” NC balloon (5.0mm/10mm) was used to postdilate the LM stent with 16 bars. A “Sprinter Legend” balloon (1.5 x 15 mm) was used to open stent struts. A “Quantum’ NC balloon (4 x 8 mm) was used to dilate ostial LCX. Kissing ballooning was done with “Sprinter Legend” (4 x 12 mm) in LAD and “Quantum’ NC balloon (4 x 8 mm) in LCX.

Case Summary. In young patients without coronary risk factors, the cause of acute coronary syndrome should be evaluated with caution. Intra-vascular ultrasound is important in young patients and in patients with left main disease; in addition to evaluate the severity of atherosclerosis, to check the nature of the culprit lesion is also important. In our case, spontaneous coronary dissection with intramural hematoma is the cause of acute coronary syndrome. If we not found the presence of dissection and intramural hematoma in the LAD and we just implanted the stent in proximal LAD, it is possible that the dissection and intramural hematoma might extend to more distal part of LAD.

Relevant clinical history and physical exam. The case is a 51-year-old man with diabetes mellitus, hypertension, and smoking habit. Two days before hospitalization, he began to suffer from progressive intermittent chest pain, with radiation to left shoulder and jaw.

Relevant test results prior to catheterization. At emergent department, an electrocardiogram revealed ST-T segment elevation at lead II, III, aVF, and V6. Serum cardiac biomarkers were elevated (creat in 1okinase: 1828 U/L, creatinine kinase MB isoform: 205 U/L, and troponin I 8.97ng/mL). Primary percutaneous coronary intervention was arranged under the impression of ST-elevation myocardial infarction (STEMI).

Relevant catheterization findings. The left coronary angiography revealed absence of left circumflex artery (LCX) and small collateral...
channel from left anterior descending artery (LAD) to LCX territory. However, a faint vascular shadow from posterior lower part of right coronary cusp (RCC) was seen during right coronary angiography. Further angiography proved the anomalous origin of LCX from the RCC, and a blunted end at proximal portion of LCX was the cause of STEMI.

**[INTERVENTIONAL MANAGEMENT]**

**Procedural step.** The posterior and low takeoff of LCX orifice was successfully engaged with a 7 French Judkin’s right 4.0 guide catheter (Medtronic Launcher® coronary guide catheter). SION® guide wire (ASAHI INTECC) passed through the stenotic site, after then thrombus aspiration with Elimiate® aspiration catheter (Terumo Interventional system) was performed without resistance. Thrombolysis in myocardial infarction (TIMI) level 2 flow was established. An Atlantis® SR Pro 40 MHz intravascular ultrasound (Boston Scientific) was used for evaluation of vessel size and lesion characteristics, and showed vulnerable plaque as the cause of acute vessel occlusion. A 4.5 x 15 mm NC Quantum Apex® balloon (Boston Scientific) was used for lesion pre-dilatation, and a 4.0 x 28 mm Promus element® drug-eluting stent (Boston Scientific) was deployed at the stenotic site. After post-stenting inflation with 4.5 x 15 NC Quantum Apex balloon, there was no residual stenosis, and TIMI level 3 flow was established.
Case Summary. Right coronary cusp-originating left circumflex arteries are found in 0.48-0.7 % of all coronary angiography. A higher proportion of patients with anomalous vessels presented acutely. For a low posterior takeoff LCX from RCC, Judkin’s right guide catheter can be engaged to the LCX coaxially. When there is no ostial lesion, deeper intubation of Judkin’s right guide catheter provides more support for device delivery.

TCTAP C-006
STEMI with Total Occlusion of DES in RCA
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[CLINICAL INFORMATION]
Patient initials or identifier number. 24197165
Relevant clinical history and physical exam. A 60 year-old male patient presented with chest tightness on July 5, 2013. He had a history of CAD and Old MI and received DES implantation in LAD and RCA in June, 2011. EKG revealed mild ST Segment elevation in inferior leads. Primary PCI was arranged and total occlusion of previous DES in RCA was found.

Past Hx:
CAD, 2VD (LAD and RCA)
2011/6/9: LAD ISR s/p DES x 2, p-m-RCA CTO s/p DES x 2

Relevant test results prior to catheterization. 2-D echo: Global Hypokinesia, LV dilatation
Mild MR/TR, LVEF 32%

Relevant catheterization findings. RCA revealed total occlusion since orifice
LCA revealed no significant in-stent restenosis