A challenging case of RCA-CTO performed by biradial retrograde approach using multi-collateral channel

72-year-old male underwent elective PCI for CTO of RCA. He had coronary risk factor of hypertension and dyslipidemia. He had underwent femorofemoral bypass because of acute limb ischemia. So we performed via biradial approach. RCA was engaged with a 7Fr Hyperion AL-1 SH and LCA was engaged with a 7Fr Hyperion SPB3.5. We started antegrade wiring first by XT-R under the support of a corsair microcatheter. But wire did not cross, so we switched the wire to Miracle Neo3 and Ultimate Bros3. They didn’t cross even under the support of Guidezilla. So we switched to retrograde approach. Retrograde wire XT-R with corsair advanced to distal edge of CTO. Ultimate Bros3 advanced to mid portion of CTO segment and we successed reverse CART and externalization with RG3. Emerge2.25/15mm and NC Emerge3.5/15mm was inflated in CTO segment. We performed IVUS. It revealed that the wire went into subintimal space and caused a long dissection. So we challenged to find another channel of the same septal channel using SASUKE and Sionblack. But we failed. So we challenged to find first septal channel. But we failed. So we find the atrial circumflex channel from LCX. SUOH03 advanced to distal cap of CTO supported by caravel. But it couldn’t pass the distal cap. So we switched retrograde wire to Bros3, Gaia third and Conquest pro12. Conquest pro12 could pass the distal cap and SIONblack advanced the mid portion of CTO using IVUS guide from antegrade. Reverse CART was performed, but it failed. At last, retry from atrial circumflex channel using SUOH03 and corsair could pass the true lumen and successed externalization with RG3. We deployed three drug eluting stents. Final angiography confirmed success of the procedure.