

Yuki Yamamoto¹Tamon Kato¹, Koki Fujimori¹, Yasushi Ueki¹, Soichiro Ebisawa¹, Koichiro Kuwahara¹¹ The Department of Cardiovascular Medicine, Shinshu University, Japan

Endovascular treatment of central venous chronic total occlusion (CTO) in hemodialysis patients can be technically challenging. A 58-year-old hemodialysis patient with antiphospholipid syndrome presented with mild facial and right upper extremity edema secondary to CTO of the right brachiocephalic vein. Endovascular treatment was performed via the right brachial vein and right common femoral vein using a bidirectional approach. IVUS was used to confirm true lumen wire passage from the brachial approach, while CTO crossing was attempted from the femoral approach under multiple fluoroscopic projections to optimize wire orientation. A 0.014-inch CROSSLEAD Penetration and Jupiter MAX failed to penetrate the hard occlusion cap despite adequate support. Finally, a 0.018-inch CROSSLEAD Penetration successfully punctured the cap and crossed the CTO. Sequential balloon dilatation restored satisfactory venous flow. As no significant recoil or flow-limiting dissection was observed, the procedure was completed without stent implantation.