1062 **A Case of Severely Calcified Superficial Femoral Artery Chronic Total Occlusion Successfully Treated with JETSTREAM Atherectomy and Trans-Ankle Intervention**

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Case: A man in his 70s came to our hospital with intermittent claudication in his right leg. Duplex ultrasound showed a chronic total occlusion (CTO) of the superficial femoral artery (SFA), and endovascular therapy (EVT) was planned.

Procedure: We first punctured the right common femoral artery (CFA) antegradely and attempted to advance the guidewire into the SFA, but it could not be inserted due to severe calcification. Because sheath insertion was not possible, we switched to a trans-ankle approach. We punctured the posterior tibial artery (PTA) and inserted a ParentSelect5082 catheter to set up the trans-ankle intervention (TAI) system. We successfully advanced a Gladius MG wire retrogradely to the CFA without much difficulty. After dilatation along the entire SFA with a small balloon, we re-punctured the CFA and were able to insert a 7Fr sheath into the SFA.
Based on intravascular ultrasound findings, we decided to perform JETSTREAM atherectomy. Because the lesion was long and a large amount of calcified plaque removal was expected, we used distal protection: we occluded the popliteal artery with a 4.0 mm balloon via the TAI system and placed a PARACHUTE filter in the anterior tibial artery from the antegrade system. Atherectomy was done using JETSTREAM SC1.85 and XC2.4, followed by aspiration. Then, we used a scoring balloon and applied a 6.0 mm drug-coated balloon (DCB) along the SFA. Finally, we used a 7.0 mm DCB for prolonged dilation at the CFA-SFA proximal site for hemostasis of the antegrade puncture site. The TAI system was then removed, and the procedure was completed.

Discussion: Recently, real-world experience from Japan is increasingly being reported, further supporting the use of JETSTREAM atherectomy with DCB in severely calcified lesions. At the same time, the importance of appropriate strategies to manage slow flow has been increasingly recognized. In this case, we expected that the antegrade approach alone would be difficult, so we quickly switched to TAI, which allowed us to cross the lesion more easily. After the TAI system was established, using JETSTREAM antegradely allowed us to perform double distal protection with balloon occlusion and filter placement, which helped prevent slow flow. This case shows that combining TAI with JETSTREAM can be a useful strategy for treating severely calcified SFA CTO.