

A case of CLTI in which a severely calcified SFA CTO was treated using Crosser iQ in the first session, followed by retrograde intraluminal tracking under antegrade IVUS guidance in the second session.

Masanao Inoue¹, Naoki Hayakawa¹, Toshiki Tsurumaki¹, Yasuyuki Tsuchida¹, Shinya Ichihara¹, Shunichi Kushida¹

¹The Department of Cardiology, Asahi General Hospital, Japan

Background: Patients with critical limb-threatening ischemia (CLTI) often present challenges in selecting appropriate access routes for endovascular therapy (EVT). In the present case, the SFA CTO originated at the ostium and a stent had already been placed in the common femoral artery (CFA), making antegrade access from the ipsilateral side unfeasible. Therefore, a contralateral crossover approach was selected. In addition, heavily calcified lesions that prevent balloon passage are frequently encountered in CLTI patients, and appropriate debulking strategies must be considered. At our institution, devices such as the Wingman or Crosser iQ are commonly used in such cases.

Case: The patient was an 82-year-old man admitted with critical limb-threatening ischemia (CLTI) of the right lower extremity. Contrast-enhanced CT revealed a long-segment chronic total occlusion (CTO) of the right superficial femoral artery (SFA) and chronic occlusion of the anterior tibial artery (ATA). A stent had already been placed in the common femoral artery (CFA), and the SFA occlusion originated from its ostium, making ipsilateral antegrade access unfeasible. Therefore, the procedure was initiated using a contralateral crossover approach. Although a guidewire successfully crossed the lesion, no balloon could pass through. The lesion was finally crossed using the Crosser iQ device, achieving successful revascularization.

In a second-stage procedure, ipsilateral antegrade access was obtained to treat the below-the-knee (BTK) disease. However, this intervention was complicated by severe calcification and hard plaque. Ultimately, retrograde intraluminal tracking was successfully achieved under antegrade IVUS guidance, leading to complete revascularization.

Conclusion: This case highlights a successful staged revascularization strategy in CLTI, in which both SFA and BTK lesions were treated despite limited access options. BTK revascularization was crucial for limb salvage and was accomplished through a two-stage approach.