

## **A case of IVUS-guided revascularization from the occluded anterior tibial artery for chronic total occlusion of the femoral artery.**

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**Background:** Currently, there are several approaches for chronic total occlusion (CTO) of the superficial femoral artery (SFA). Trans ankle intervention (TAI) is one of them and is attracting attention as a less invasive treatment. However, there are concerns about anterior tibial artery (ATA) occlusion after the treatment. We report a case in which a combination of IVUS-guided wiring and an approach from the occluded ATA allowed complete revascularization of the SFA CTO.

**Case:** A 79 year old male was admitted for severe right foot claudication. Right ABI was 0.71, and MRA showed occlusion of the right SFA and ATA. We treated this case with an approach from occluded ATA. Dorsal artery (DPA) was punctured with the ultrasonography guide. There was no bleeding due to the DPA occlusion, but the ultrasonography confirmed the presence of a needle tip in the vessel. Crosslead tracker was inserted but couldn't pass through. Gladius MGES was able to pass through to the ATA proximal, however, could not pass to the Popliteal artery (PopA). Observing with the AnteOwl, we were able to get the wire back from subintimal space to the intraplaque lumen and passed through the PopA. The Parent select5082 was inserted in the PopA. The SFA was occluded with very hard plaque and the Crosslead penetration was used to pass through to the CFA with 3D angio guide. However, the wire route was partially through the subintimal. We performed IVUS-guided wiring several times and were able to pass through intraplaque, using the Tip detection method as well. We succeeded in revascularizing SFA CTO and ATA.

**Conclusion:** By combining TAI approach and IVUS-guided wiring, it may support us to overcome CTO cases with minimal invasive treatment.