1106 **Successful Revascularization of a Heavily Calcified Pedal Arch Using the WINNER Technique (Pedal Arch WINNER; PAW technique)**

Keiichiro Shimazu1, Keisuke Mori1, Yotaro Fujii1, Natsumi Yanaka1, Atsuya Murai1, Tomoya Fukagawa1, Kohei Yamaguchi1, Masahiro Miyata1, Masakazu Tsutsumi1, Shinsuke Mori1, Norihiro Kobayashi1, Yoshiaki Ito1

[1]Department of Cardiology, Saiseikai Yokohama-city Eastern Hospital, Japan

Case Presentation

A 74-year-old male was referred to our department for treatment of refractory ulcers on the left toes.

Lower limb angiography revealed severe calcified stenosis in the left superficial femoral artery (SFA), along with lesions in the anterior tibial artery (ATA) and posterior tibial artery (PTA). Due to poor contrast enhancement, assessment of the distal foot lesions was not possible.

Endovascular treatment (EVT) was initially performed for the SFA lesion. After successful guidewire passage, a JETSTREAM device was used for debulking.

Subsequently, treatment of the ATA lesion was undertaken. A distal puncture was performed, allowing guidewire passage and balloon angioplasty, which achieved good lesion expansion. However, the pedal arch was found to be completely occluded distal to the dorsal artery, resulting in insufficient blood flow to the wound. Therefore, a staged EVT for the pedal arch was planned.

Given the need for a bidirectional approach to cross the pedal arch, a distal puncture was performed to gain access to the occluded PTA lesion, enabling revascularization. An attempt was then made to advance a guidewire from the lateral plantar artery to the dorsal artery, but it was unsuccessful. Using the retrograde guidewire as a landmark, antegrade wiring from the dorsal artery was performed, resulting in successful guidewire passage through the pedal arch. However, due to heavy calcification, the microcatheter could not cross the lesion.

Debulking was deemed necessary, and the WINNER technique was selected for treating the pedal arch. Since the Wingman catheter could not navigate the curved anatomy of the pedal arch, a puncture was performed in the distal PTA in an antegrade fashion, and a pull-through guidewire was established from the dorsal artery. While applying tension from the PTA side, the Wingman was carefully advanced and successfully crossed the heavily calcified lesion.

Subsequently, a balloon was delivered and balloon angioplasty was performed from the dorsal artery to the plantar artery. This resulted in satisfactory expansion of the pedal arch and restoration of blood flow to the wound, concluding the procedure.

Conclusion

We report a case of successful revascularization of a heavily calcified pedal arch using the WINNER technique (PAW technique).