



## Successful limb salvage from critical limb ischemia with bilateral variant anatomy of infrapopliteal arteries

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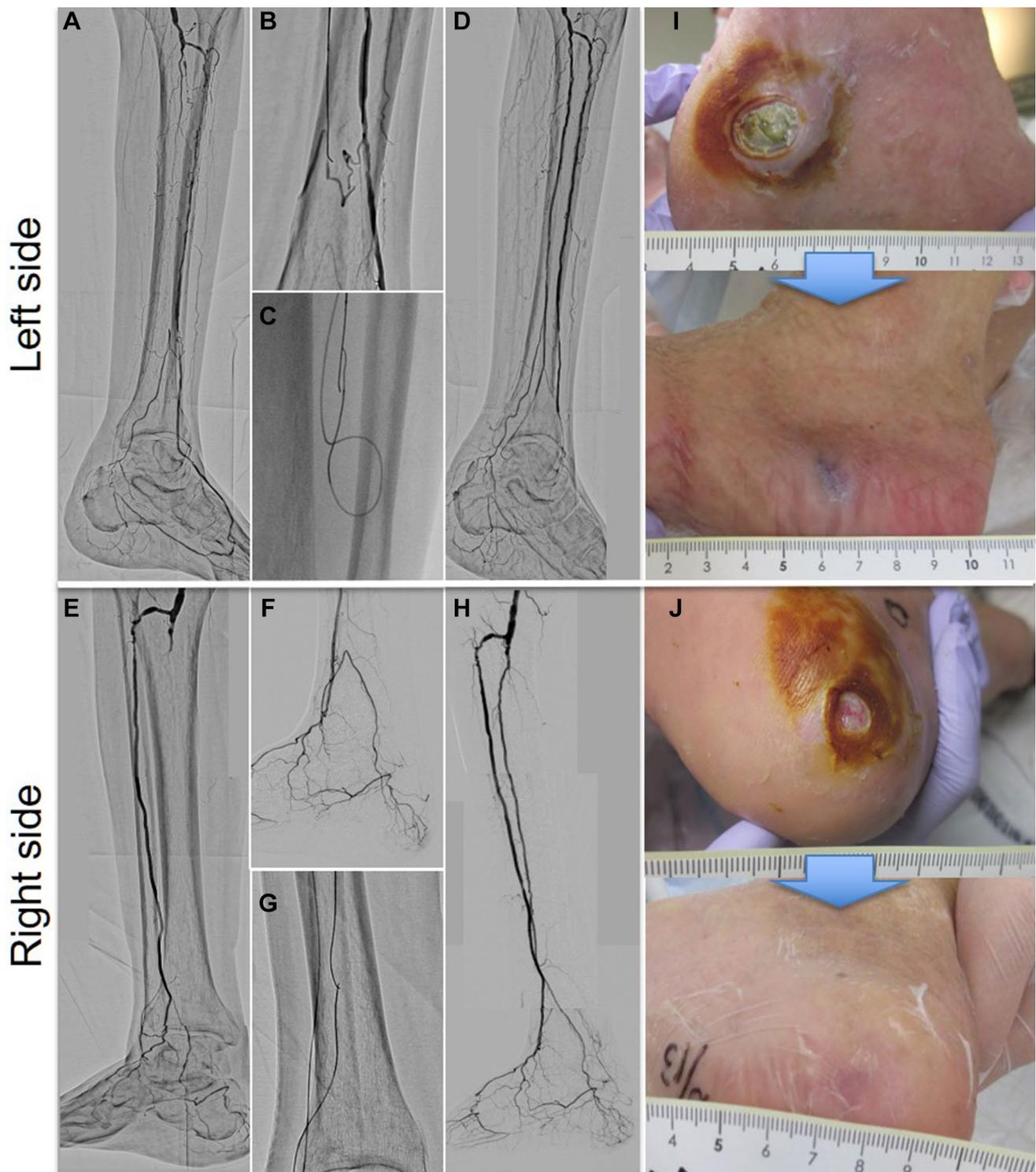
An 88-year-old man was admitted to our hospital for the treatment of refractory ulcers on both heels. Computed tomography angiography showed severe bilateral stenosis of the anterior tibial artery (ATA) and occlusion of the tibio-peroneal trunk. We initially performed endovascular treatment (EVT) for the left lower limb. The left plantar artery was perfused via the collateral artery from the ATA (Fig. 1a, b). Therefore, we performed trans-collateral angioplasty (TCA) from the ATA (Fig. 1c), and successfully recanalized the occluded vessel. The plantar artery communicated from the peroneal artery, considered as the type III-A variant anatomy of infrapopliteal arteries (Fig. 1d). In the next session, initial angiography of the right infrapopliteal arteries was considered to be similar with that on the left (Fig. 1e, f). Then, we performed TCA from the ATA in the same way

as the procedure on the left side (Fig. 1g), and successfully recanalized the occlusion. The right side also displayed the type III-A variant anatomy (Fig. 1h). Refractory ulcers on both sides favorably healed after revascularization (Fig. 1i, j).

Infrapopliteal artery disease is predominant in critical limb ischemia (CLI) [1]. Infrapopliteal arteries usually show a diverse anatomy, in contrast to iliac and femoropopliteal arteries. When infrapopliteal variant is observed in one extremity, it is reported that 28–50% cases have a variant pattern in the other extremity, and up to 76% of those cases show the same variant pattern [2]. The present image suggests that we should always note the awareness of infrapopliteal variant vasculature in patients with CLI.

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**Fig. 1** **a** Control angiography of the left lower extremity. **b** Collateral artery from the ATA to plantar artery. **c** TCA from the ATA. **d** Post-procedural angiography showing type III-A variant anatomy. **e** Control angiography of the right lower extremity. **f** Collateral artery

from the ATA to plantar artery. **g** TCA from the ATA. **h** Type III-A variant anatomy also on the right side. **i** Refractory ulcer on the left heel healed after revascularization. **j** Refractory ulcer on the right heel healed after revascularization

## Compliance with ethical standards

**Conflict of interest** The authors declare no conflicts of interest.

**Informed consent** Written informed consent was obtained from the patient for publication of this image article.

advance for limb salvage in diabetics. *Diagn Interv Imaging.* 2015;96:423–34.

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