

## Pedal bypass: An acceptable approach to limb salvage

Matej Makovec, Petra Tomaževič Pupič, Urška Dolšak, Miloš Potkonjak  
Novo mesto General Hospital, Šmihelska 1, 8000 Novo mesto, Slovenia  
e-mail: [matej.makovec@sb-nm.si](mailto:matej.makovec@sb-nm.si)

**Objective:** This study was undertaken to evaluate our experience with bypass to the pedal artery (pedal bypass) for ischemic limb salvage.

**Methods:** This was a retrospective analysis of patients in our vascular surgery department database from January 2012 to December 2018. Demographic data, indications for surgery, and outcomes were recorded, and statistical analysis was performed to assess significance.

**Results:** 31 patients (6 [19%] females) with a median age of 67,2 years ( $\pm 11,5,48-87$ ) underwent pedal bypass procedure and 11 patients (4 [36%] females) with a median age of 69,0 years ( $\pm 9,0,57-87$ ) underwent only pedal artery exploration. Indications for operation were tissue loss in 37 patients (88%), rest pain in 5 patients (12%). Twenty-eight grafts (90%) had inflow from the popliteal artery, 3 (10%) grafts had inflow from a femoral artery. Conduits used were greater saphenous vein in all patients. There were 17 bypasses (55%) to dorsal pedal artery, 10 bypasses (32%) to retromalleolar artery, 2 bypasses (6.5%) to the tibial anterior artery, and 2 bypasses (6.5%) to the tibial posterior artery. Thirty-day mortality was 2.4% (1 of 42 procedures). Limb salvage at 6 months was 74% and 45% in pedal bypass and exploration groups respectively.

**Conclusion:** Pedal bypass, even in patients with a previously failed revascularization, can be undertaken with acceptable limb salvage rate. Based on the presented data, the pedal bypass procedure in the patients with unsuccessful endovascular treatment seems justified.