

#4 PERIMALLEOLAR AND PEDAL THROMBOEMBOLECTOMY TO TREAT DISTAL EMBOLIZATION DURING AORTOILIAC ANEURYSM REPAIRS

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Objectives: Lower extremity embolization occurs during aortoiliac aneurysm (AAA) repair and may require major amputation when distal arteries are occluded. Since non-operative treatments are often ineffective, we evaluated an aggressive operative approach.

Methods: In the past 11 years, we performed 328 endovascular and 350 open AAA repairs. Excluding cases of embolization to iliac, femoral, popliteal, and proximal tibial vessels (which were treated in a standard fashion), foot ischemia severe enough to produce cadaveric, pre-gangrenous, or gangrenous skin changes occurred from more distal embolization after 7 endovascular and 3 open AAA repairs. Six of these ten patients had thromboembolectomies of both their dorsalis pedis (DPs) and perimalleolar posterior tibial (PTs) arteries within 4 hours of their original operation. In the other 4 patients, treatment was delayed 7 to 10 days. Because of progressive foot ischemia, arteriography was performed. Based on this, 4 bypasses (3 autologous vein, 1 polytetrafluoroethylene graft) were performed to the transverse metatarsal arch, DP, perimalleolar peroneal artery, or perimalleolar anterior tibial artery.

Results: Patency and limb-salvage rates for both thromboembolectomy and bypass procedures were 100% at a mean follow-up of 3.0 years (range 5 months-8 years).

Conclusions: Thus, perimalleolar and foot artery thromboembolectomy and bypasses to arteries as distal as the metatarsal arch can be effective treatment for distal embolization from aortoiliac aneurysm repair. Even when cadaveric, pre-gangrenous, or gangrenous lesions or so called trash foot are present, distal arteriography and operative treatment (thromboembolectomy or bypass) may be indicated to successfully salvage the foot.