Rutherford and Fontaine classifications ($P < .001$). Amputation was performed in 9.1% of patients within 1 year.

Conclusion: Good clinical results and limb salvage can be achieved with a combined medical and surgical treatment approach in advanced stage patients who do not respond to optimal medical treatment. Smoking cessation, good determination of the target surgical site, saphenous patchplasty, saphenous distal bypass applied after endarterectomy in suitable patients, and good medical and analgesia treatment will improve the results further.

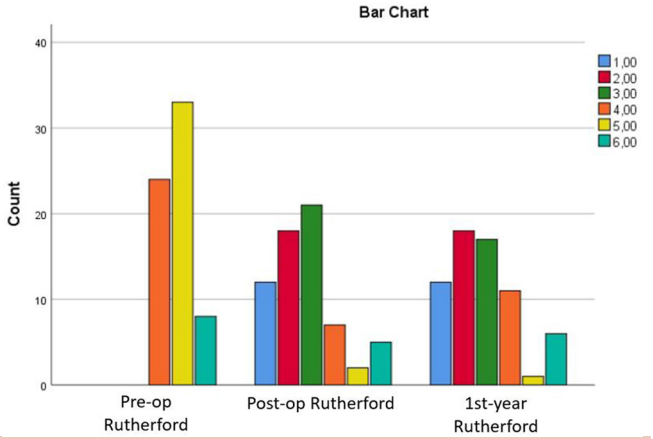

Fig 1. Improvement in the Rutherford class of patients.

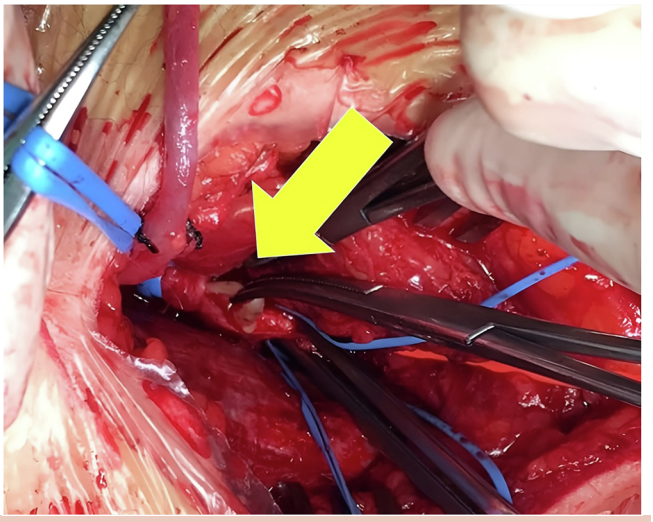

Fig 2. Excision of the fibrin band that developed secondary to chronic inflammation in the background of Buerger's disease.

Author Disclosures: F. Islamoglu: Nothing to disclose.

Endovascular Treatment of Lower Extremity Arterial Lesions With Direct Puncture of Occluded Native SFA

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Objective: The classical understanding of access in endovascular surgery is through a patent segment of the artery with further antegrade or retrograde passage of catheter systems and the possibility of remote manipulations. However, in some cases, the effectiveness of classical access is limited.

Methods: Interventions with direct puncture of occluded native arteries were performed on 65 patients, all with critical limb ischemia. The patients were divided into two groups: group 1 received direct puncture of the occluded native artery (n = 31), while group 2 received puncture of the occluded artery (proximal superficial femoral artery with no stump) after preliminary recanalization and predilation by another (brachial or radial) approach to shorten the arm of manipulation on the distal segments of the artery of the lower extremity (LE; n = 34) with multilevel lesions. The mean age of the patients was 68.6 ± 1.7 years. Fifty-one were male, and 14 were female. Puncture was performed using 18G and 21G needles and 0.035- and 0-018 inch guidewires. Access was achieved under fluoroscopy or ultrasound control. Balloon dilatation and stenting (if needed) of the puncture site were performed in all patients.

Results: Successful puncture and insertion of the sheath, as well as successful endovascular treatment, were achieved in 65 patients (100%). Hematoma was determined at the puncture site in 11 patients; volume did not exceed 30 mL. Treatment was conservative. No complications occurred at the puncture sites and in the arteries during the hospital period or after 30 days. Long-term results aligned with other endovascular interventions.

Conclusion: For group 1, direct access through occluded native arteries for endovascular treatment of LE artery lesions is a safe and effective technique that can be used in the absence of suitable passable LE artery segments for classical access. For group 2, this method offers efficiency and convenience—using a short arm for manipulation makes all distal arteries (tibial/pedal) easily accessible. All available endovascular technologies are applicable, and there is no need for hemostasis in the arteries of the LE. Early rehabilitation of patients is possible, especially in older age.

Author Disclosures: Z. Kavteladze: Nothing to disclose.

Atherectomy With Drug-eluting Balloon for Common Femoral Artery Occlusive Disease: Four-year Experience

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Objective: Previously, the gold standard treatment for occlusive lesions of the common femoral artery was endarterectomy. In recent years, interest in endovascular treatment of the common femoral artery has been increasing. Vessel preparation with rotational atherectomy, followed by drug-eluting balloon usage, could be an effective option.

Methods: Between June 2021 and July 2025, 89 patients with 109 occlusive diseases of the common femoral artery were treated with rotational atherectomy followed by drug-coated balloon. They were reviewed retrospectively. The primary end point was freedom from target lesion revascularization.

Results: The study included 68 men and 21 women. The mean age was 72.6 years old. A total of 84% of studied limbs had preoperative Rutherford stage 1 to 3 peripheral arterial disease. The mean length of the lesions was 3.5 cm. All lesions were heavy calcified. Eighty-one procedures were anterograde, with 71 contralateral femoral and 10 upper limb punctures, and 28 were retrograde, with ipsilateral superficial femoral punctures. No filter was used. Technical success rate was 100%. No bail-out stenting was required. Four patients died after 1 month, two patients experienced none-ST-elevation myocardial infarctions, three experienced acute kidney injuries, five experienced false aneurysms, and two exhibited thrombosis at the puncture site.

The mean follow-up was 20.2 months. The freedom from target lesion revascularization rate was 90.8%. Nine patients required secondary endarterectomy, and one needed a new atherectomy. Three patients received major amputations, and three underwent minor amputations.

Conclusion: These results show that rotational atherectomy with drug-coated balloon angioplasty for common femoral calcified occlusive disease is feasible and safe. It has the advantages of avoiding the potential complications of surgical treatment and not leaving a stent. The best indication for this treatment could be in older and sicker patients with intermittent claudication. The worst indication could be in patients with CLTI and multilevel extensive occlusive disease.

Author Disclosures: A. Kerzmann: Nothing to disclose.

Outcomes Following Revascularization for Acute Lower Limb Ischemia Using Contemporary Endovascular, Hybrid, or Open Surgical Techniques: The ALIVE Registry

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Objective: To report perioperative and mid-term outcomes following open surgical, endovascular, and hybrid revascularization for acute lower limb ischemia (ALI) using contemporary techniques and provide adjusted comparative analyses accounting for key baseline differences.

Methods: This multicenter observational study includes consecutive patients treated for ALI (January 2016-November 2024) across 20 international vascular centers. Patients underwent open surgery (56%), endovascular treatment (20%), or hybrid procedures (24%). Primary outcome was major amputation and/or death at latest follow-up. Secondary outcomes included perioperative mortality, amputation, acute kidney injury, and reintervention. Multivariable Cox regression analyses adjusted for age, sex, Rutherford stage, and chronic kidney disease were performed.

Results: A total 1259 consecutive patients (none with popliteal aneurysms) underwent infrainguinal ALI revascularization across 19 European centers and one center in New Zealand (51% male; mean age, 62 ± 4 years). At 30 days, perioperative mortality was 11% (open, 12%; endovascular, 3%; hybrid, 7%), and major amputation occurred in 9% of patients (open, 10%; endovascular, 8%; hybrid, 7%). At 3 years, overall mortality was 23% (open, 26%; endovascular, 13%; hybrid, 21%), and major amputation occurred in 16% (open, 12%; endovascular, 29%; hybrid, 14%). Adjusted analyses showed endovascular treatment was associated with a reduced risk of amputation (hazard ratio [HR], 0.69; 95% confidence interval [CI], 0.48-0.97; $P = .035$) and the composite of amputation and/or death (HR, 0.69; 95% CI, 0.53-0.89; $P = .005$) compared with open surgery at the end of follow-up (median, 3 years).

Conclusion: In this multicenter cohort, endovascular ALI intervention was associated with lower long-term amputation risk compared with open surgery, without compromising survival. These findings show that endovascular treatment is a safe alternative in people with ALI and highlight the need for a major randomized trial to assess the comparative effectiveness of contemporary revascularization strategies in ALI.

Author Disclosures: N Konstantinou: Cook Medical.

Chronic Total Occlusions in Real-world PAD: Insights From a Stratified 12-month Analysis of the SUCCESS Study Using a Sirolimus-eluting Balloon

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Objective: Peripheral arterial disease (PAD) often presents with complex anatomy, including chronic total occlusions (CTOs) across both femoropopliteal and below-the-knee arteries. These lesion types are associated with worse procedural outcomes, higher reintervention rates, and increased risk of limb loss, particularly in patients with critical limb-threatening ischemia.

Methods: This analysis aims to provide insight into the safety and efficacy of the SELUTION SLR drug-eluting balloon (DEB) in these challenging lesion subsets, which are often associated with suboptimal outcomes and remain underrepresented in clinical data. SUCCESS PTA is a real-world, prospective, multicenter, single-arm postmarket study of SELUTION SLR DEB for the treatment of de novo/restenotic lesions in the superficial femoral, popliteal, tibial, and pedal arteries. A total of 720 patients were enrolled at 27 sites in Europe, Asia, and South America. The primary end point of the study is freedom from clinically driven target lesion revascularization at 12 months.

Results: Significant comorbidities included diabetes mellitus (273 [37.9%]); 186 patients (25.8%) were Rutherford 4, 5, or 6. The mean lesion length was 128.4 mm, and the reference vessel diameter was 5.2 mm. A total of 42.1% of lesions were totally occluded, and 36.3% had grade 3 or 4 calcification. The complete 12-month clinical outcomes stratified by the presence or absences of CTO lesions were available by the time of presentation.

Conclusion: SUCCESS PTA is the largest study of a sirolimus DEB enrolling more than 700 real-world patients treated with SELUTION SLR DEB. The existing 12-month follow-up data demonstrated the safety and effectiveness of SELUTION SLR DEB in treating real-world PAD patients. The findings of this analysis will contribute valuable evidence toward the expanding role of sirolimus-based DEBs in the endovascular management of peripheral arterial disease, particularly in challenging anatomies.

Author Disclosures: M. Lichtenberg: Cordis.

Outcomes Following Tibial and Pedal Access for Lower Extremity Endovascular Interventions

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Objective: Femoral artery access remains the standard approach for peripheral endovascular interventions. However, complex femoropopliteal and infrapopliteal disease can pose significant challenges, with antegrade recanalization failure rates reported as high as 20%. Tibial-pedal access is a viable alternative, although concerns remain about access site complications in small caliber vessels. This study evaluates the safety of primary tibial-pedal access compared with traditional femoral artery approaches.

Methods: We retrospectively analyzed the Vascular Quality Initiative Peripheral Vascular Interventions database from 2015 to 2020, including procedures using femoral, tibial, or pedal access. Primary outcomes assessed included access site complications, stenosis/occlusion, hematoma, target site dissection, and vessel perforation. Multivariable logistic regression models adjusted for patient and procedure confounders. Statistical significance was set at a P value of $<.05$.

Results: A total of 127,263 patients were identified, most with femoral retrograde access (n = 108,634), followed by femoral antegrade (n = 13,645), pedal (n = 2771), and tibial (n = 2213). Baseline demographics were largely similar across groups, although tibial-pedal patients were older and had more medical comorbidities.

The most common indication for tibial-pedal access was tissue loss (tibial, 52.4%; pedal, 60.3%), while the most common indication for femoral retrograde access was claudication (42.6%). Tibial-pedal approaches more often required multiple access sites (≈86% vs 12%-14%) and smaller sheaths, with less frequent protamine use (Table). Regarding complications, there were no statistically significant differences in the

Table. Procedural characteristics

Characteristic	Femoral retrograde (n=108634)	Femoral antegrade (n=13645)	Tibial (n=2213)	Pedal (n=2771)	P-value
Procedural Details					
Indication					<.001
Asymptomatic	6274 (6.1)	922 (7.2)	64 (3.0)	71 (2.6)	
Claudication	43508 (42.6)	4013 (31.4)	669 (31.3)	670 (25.0)	
Rest Pain	14781 (14.5)	1885 (14.8)	284 (13.3)	325 (12.1)	
Tissue Loss	37587 (36.8)	5941 (46.6)	1120 (52.4)	1619 (60.3)	
Index intervention					<.001
Iliac	25423 (25.4)	2327 (19.7)	74 (4.1)	72 (2.8)	
Fem-pop	16365 (16.4)	2479 (21.0)	299 (16.7)	929 (36.7)	
Tibial	58144 (58.2)	6995 (59.3)	1418 (79.2)	1530 (60.5)	
Access Side					<.001
Ipsilateral	20339 (19.2)	11064 (82.8)	849 (40.4)	1127 (42.9)	
Contralateral	85402 (80.8)	2296 (17.2)	1252 (59.6)	1497 (57.1)	
>1 Access Site	14940 (13.8)	1593 (11.7)	1914 (86.4)	2378 (85.8)	<.001
Sheath size	6.1 ± 1.0	6.0 ± 1.2	5.8 ± 0.9	5.8 ± 0.9	<.001
Protamine	27654 (27.1)	4013 (31.4)	481 (23.9)	638 (25.3)	<.001