Demand for Vascular Grafts in Peripheral Vascular Surgery
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Introduction
The goal of infrainguinal vascular reconstruction for limb salvage is to maintain a viable and functional extremity for the longest period of time. There is a considerable controversy within the literature on how to achieve this objective. Although other factors must also be considered when selecting the optimal femoro-popliteal or tibial reconstruction, the choice of graft material and the site of distal anastomosis are established as important contributory variables. Aim of the study is to demonstrate bypass-procedures and to point out the demand for vascular grafts.

Materials and Methods
Femoro-popliteal bypass grafting has been shown to be an effective form of treatment for arterial occlusive disease in patients with severe claudication or critical ischemia. Infrainguinal revascularization with prosthetic graft conduits is usually reserved for patients lacking autogenous tissue for arterial reconstruction. The use of prosthetic grafts for above knee reconstructions to preserve the saphenous vein for more distal reconstructions in case of progression of distal atherosclerotic occlusive disease has also been proposed. Besides superficial veins also the deep femoral and arm veins were used for bypass procedures. The bypass graft ranges from 5-8 mm in diameter and from 40 cm (for above knee) to 80 cm (for below knee reconstructions) in the length. Bypass procedures were done in reversed, non-reversed or in situ technique.

Results
There is no statistically significant difference in above-knee femoropopliteal bypass grafting in autologous veins and e-PTFE, Dacron and allografts at 2 years although the vein performed better; but after a 5-year period and in below-knee femoropopliteal bypasses there is a statistically significant difference in patency rates reported in numerous studies.

Discussion and Conclusions
Graft failure has more than one etiologic factor: progression of the distal disease, progression of the inflow disease, intimal hyperplasia at the anastomosis, and infections. If an optimal graft is chosen, the progression of disease may be influenced by controlling risk factors that modulate the intimal hyperplasia and infection rate.

The ideal vascular graft should be biocompatible, resistant to infection, non-thrombogenic, easy to suture and durable. No vascular graft, biologic or synthetic, to date has been able to fulfill all of these characteristics. Autologous saphenous vein of good quality remains the preferred conduit to date. It probably mimics the characteristics of a replaced arterial segment more than any other available conduit. The excellent performance of the saphenous vein in the femoropopliteal position let vascular surgeons successfully achieve limb salvage even in more distal (tibial or pedal) reconstructions.

References