

Debate: All This Stuff about Patches and Cuffs Is Nonsense since Equal Results Can Be Obtained without Them

NOTES

Nicholas J. Gargiulo III, MD, New York, NY; Frank J. Veith, MD, New York, NY; William D. Suggs, MD, New York, NY; Evan C. Lipsitz, New York, NY, MD; Larry A. Scher, MD, New York, NY; Takao Ohki, MD, New York, NY

Purpose

Polytetrafluoroethylene (PTFE) tibial and peroneal bypasses without patches, cuffs or other adjunctive procedures have been primarily used at our institution for patients facing imminent amputation when autologous vein is not available. This is in striking contrast to other well-established groups who often employ distal vein cuffs or patches in order to improve overall limb-salvage rates.

Methods

A retrospective analysis of 259 patients undergoing infrainguinal limb salvage at our institution between June 1983 and June 2003. These 259 patients underwent 271 PTFE bypasses to a tibial or peroneal artery without a distal anastomotic cuff, patch, or arteriovenous fistula. Tourniquet control of the tibial or peroneal artery was used in the majority of cases (85%). Cumulative life-table primary and secondary patency and limb-salvage rates were calculated for those bypasses performed between June 1983 and June 1993 (group I). These were compared to those performed between June 1993 and June 2003 (group II). Patient demographics, distal anastomotic times, intraoperative and postoperative pharmacologic adjuncts, and primary/secondary patency and limb salvage rates were analyzed.

Results

Overall 3-year primary and secondary patency and limb-salvage rates, and total distal anastomotic time are outlined in Table 1. Patient demographics and intraoperative/postoperative pharmacologic adjuncts will be discussed. A small group of patients (n = 37) required proximal vein patching for diffuse atherosclerotic disease as opposed to distal vein patching.

Conclusions

PTFE bypasses without vein cuffs, patches or other adjunctive procedures to crural arteries are a better option than amputation for patients without autologous vein. Meticulous attention to the distal anastomosis and postoperative antiplatelet/statin therapy renders these adjunctive procedures unnecessary. A subgroup of patients with diffuse proximal atherosclerotic disease may benefit from vein patching of the proximal as opposed to the distal anastomosis.

Table 1. Outcome at 3 Years

	Group I	Group II
P	28%	47%
S	43%	54%
L	66%	74%
T	33 min	69 min

L = limb-salvage rate; P = primary patency;
S = secondary patency; T = total distal anastomotic time.