Clinical Experiences of Arteriovenous Fistula
for Hemodialysis in 290 Cases

Seoul Paik Hospital, Inje University

Yoon Young Chul, M. D., Bon Il Ku, M. D., Hong Sup Lee, M. D., Chang Ho Kim, M. D.

Angioaccess has become increasingly important to vascular surgeons as more patients with end stage renal disease(ESRD) are being supported by hemodialysis. Because of the rapid increase in the number of patients undergoing hemodialysis in recent years, it has become necessary to develope alternative vascular access procedures. During the period from December 1986 to December 1992, 290 cases of arteriovenous fistula for hemodialysis were performed at Department of Thoracic & Cardiovascular Surgery, Seoul Paik Hospital, Inje University. They Consisited of 175 male and 115 female, ranging in age from 10 and 79 years. The first choice procedure, the radial artery-cephalic vein fistula, was performed upon 219 patients. In many patients, the radial artery-cephalic vein fistula cannot be performed because of inadequate vessels or failure of previous radial artery-cephalic vein fistula. The waiting time until initiation of venous puncture for the first hemodialysis session was 3. 12 days. Secondary angioaccess, using the brachiocephalic, brachiobasilic, ulnobasilic, femorosaphenous, and radiobasilic with saphenous in situ routes, was obtained in 17, 7, 4, 2 and 1 patients. Interposition grafts, the third choice, were performed upon 2 patients. 27 patients underwent revision or thrombectomies. Brachiocephalic and brachiobasilic fistulas were performed as secondary angioaccess procedures for hemodialysis, when radial artery-cephalic vein fistulas had failed or vessels are inadequate. The synthetic prosthetic vascular grafts carry a high incidence of complications, such as venous outflow obstruction, aneurysm, and graft infection, as well as a short life of adequate patency. Instead of prosthetic vascular grafts, we have chosen to use the patient's own autologus vein. The purpose of this report is to review the technique of this procedure and discuss the longterm results.