

PREOPERATIVE DIAGNOSIS: , External iliac artery stenosis supplying recently transplanted kidney with renovascular hypertension and impaired renal function.,POSTOPERATIVE DIAGNOSIS:, External iliac artery stenosis supplying recently transplanted kidney with renovascular hypertension and impaired renal function.,PROCEDURES:,1. Placement of right external iliac artery catheter via left femoral approach.,2. Arteriography of the right iliac arteries.,3. Primary open angioplasty of the right iliac artery using an 8 mm diameter x 3 cm length angioplasty balloon.,3. Open stent placement in the right external iliac artery for inadequate angiographic result of angioplasty alone.,ANESTHESIA: , Local with intravenous sedation.,INDICATION FOR PROCEDURE:, He is a 67-year-old white male who is well known to me. He had severe peripheral vascular disease and recently underwent a kidney transplant. He has had some troubles with increasing serum creatinine and hypertension. Duplex suggests a high-grade iliac stenosis just proximal to his transplant kidney. He is brought to the operating room for arteriography and potential treatment of this.,DESCRIPTION OF PROCEDURE: , The patient was brought to operating room #14. A condom catheter was put in place. Preoperative antibiotics were administered. The patient's left arm was prepped and draped in the usual sterile fashion. An incision was made over his brachial artery after anesthetizing the skin. His brachial artery was dissected free and looped with vessel loops. Under direct vision, it was punctured with an 18-gauge needle and a short 3J guidewire and 6-French sheath put in place. A 3J

guidewire was then introduced after the administration of intravenous heparin and advanced into the descending thoracic aorta. This was then advanced down into the right common iliac artery. The catheter was placed over this and arteriography performed. After adjusting the image intensifier to unfold the origin of the renal artery from the iliac system. We were able to demonstrate an approximately 60-70% stenosis of the external iliac artery. Immediately preceding the origin of the artery for the transplant kidney, which appeared to be widely patent. We elected to try and treat this. With catheter support a magic torque guidewire was advanced through the stenosis and into the common femoral artery. An 8 mm diameter x 3 cm length angioplasty balloon was positioned across the stenosis and inflated. This inflation was held for one minute. This was then deflated and a catheter positioned again in the proximal common iliac artery. For this application, we used a guide catheter that would allow us to inject contrast without losing our wire purchase. This showed an improvement in the stenosis, but a residual stenosis of at least 30% and we elected to stent this. An 8 mm diameter x 3 cm length stent was chosen and placed just proximal to the origin of the renal artery. After this was completed, the stent introduction balloon was removed and the catheter replaced. Repeat angiography showed a widely patent segment with no evidence of any residual stenosis. There was no evidence of any dissection or damage to the renal artery. We interpreted this as satisfactory procedure. Guidewires and sheaths were removed. The brachial artery was repaired with two

interrupted sutures of 7-0 Prolene. The wound was irrigated and the subcutaneous tissue closed with a running suture of Vicryl. The skin was reapproximated with a running intracuticular suture of Monocryl. Steri-Strips and sterile occlusive dressing were applied and the patient was taken to the recovery room in stable condition. Estimated blood loss for the procedure was less than 50 mL. Total contrast employed was 37.5 mL. Total fluoroscopy time was 12 minutes and 43 seconds.