Vascular Steal Syndrome

Sir,

We recently read the interesting report of A. M. Miles about the vascular steal syndrome [1]. Ligation of the distal radial...
lesions with signs of re-epithelialization); after 4 weeks a new ulcerative lesion appeared at the metacarpo-phalangeal junction of the second finger. Eco-colour Doppler showed reduced distal flow of the radial artery with reversal of blood flow from the digital and palmar arches. In June 1998, the cutaneous lesions worsened, developing into severe trophic ulcerations of the fingers and purulent secretion from the dorsal ulcer, despite conservative therapy.

Four months later, at the end of October, a third angiographic examination demonstrated severe artery stenosis (>90%), treated successfully with angioplasty (at 2 and 3 mm in diameter). The angiogram revealed an important reduction of the arterial inflow when the fistula was functioning (Figure 1), and good distal vascularization when the fistula was manually occluded (Figure 2).

In order to preserve the vascular access the patient was treated with acenocumarol (3 mg/day, to achieve an INR 1.5 to 2.0), and application of a compressive bandage to the hand when the fistula was manually compressed. Bandaging of the anastomosis during the interdialytic period was used to increase blood flow to the fingers. Within 15 days the cutaneous lesions had healed (Figure 3), and the fistula continued to function well. Currently, after 4 months, fistula blood flow during dialysis exceeds 300 ml/min and the condition of the left hand remains good.

In conclusion, partial compression of the anastomosis in the interdialytic period associated with anticoagulation therapy to reduce the risk of thrombosis represents a simple noninvasive therapy of the vascular steal syndrome and should be considered before opting for surgical intervention.