

**PERCUTANEOUS THROMBECTOMY OF  
ARTERIOVENOUS FISTULAS IN HEMODIALYSIS  
PATIENTS: A SINGLE-CENTER EXPERIENCE**

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Thrombosis of arteriovenous fistulas usually occurs in the setting of underlying stenosis in the venous outlet, arterial anastomosis, or central vein. Percutaneous mechanical thrombectomy, in conjunction with angioplasty of the underlying lesion, may restore fistula patency. There are relatively few published reports of the outcomes of this approach. We evaluated the success rate of percutaneous thrombectomy of fistulas at our medical center.

Using a prospective, computerized vascular access database, we identified 42 patients with thrombosed fistulas treated percutaneously, including 21 in the forearm and 21 in the upper arm. As compared with patients with thrombosed upper arm fistulas, those with thrombosed forearm fistulas were more likely to be male (86 vs 47%,  $P=0.02$ ) and black (95 vs 67%,  $P=0.04$ ), but were similar in terms of age, diabetic status, hypertension, peripheral, coronary and cerebral vascular disease.

Percutaneous thrombectomy of fistulas was technically successful (restored patency) in 26 of 42 patients (60%). The technical success rate was 57% (12 of 21) for forearm fistulas and 67% (14 of 21) for upper arm fistulas ( $P = 0.75$ ). Two procedures were aborted. Among the remaining 40 fistulas, an underlying stenotic lesion was present in the venous outlet in 37 patients (92%), at the arterial anastomosis in 11 (28%), and in the central vein in 4 (10%). Twelve patients (30%) had concurrent stenoses at 2 anatomic locations. For the subset of patients with a successful thrombectomy, the median primary patency (time from thrombectomy to the next intervention) was 167 days.

In conclusion, percutaneous treatment of thrombosed fistulas can restore fistula patency in 60% of patients, with a comparable success rate for fistulas in the forearm and upper arm. However, the primary fistula patency after successful thrombectomy is fairly short-lived (about 6 months). This approach may be useful in a subset of dialysis patients with thrombosed fistulas.