



# Autogenous radiocephalic hemodialysis access in patients with small caliber cephalic veins after expansion with a Fogarty catheter

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**ABSTRACT.** Autogenous arteriovenous fistula (AVF) is the first choice for hemodialysis access in renal failure with uremia. However, AVF cannot be performed in some patients due to small and narrow veins in the forearm. In this study, a Fogarty catheter was used to establish autogenous radiocephalic hemodialysis access in patients with small caliber cephalic veins, and the patency rate and complications of this method were observed. Sixty-seven patients with uremia were divided into a treatment group (40 cases, caliber of cephalic veins <2.5 mm) and a control group (27 cases, caliber of cephalic veins  $\geq$ 2.5 mm). According to ultrasound results, the treatment group received AVF after expansion with a Fogarty catheter, and the control group received traditional AVF. The fistula patency rate and complications were observed during follow-up. All patients were followed up for an average period of 18 months (range = 3-36 months). AVF was successfully used in 58 patients for hemodialysis, with primary access failure in 9 cases (5 cases in the treatment group and 4 cases in the control group) due to

early thrombosis. The primary and secondary patency rates 12 months after surgery in the treatment group were 64 and 72%, respectively, and those in the control group were 60 and 76%, respectively. Patients with small caliber cephalic veins can be treated with radiocephalic fistula after the caliber of cephalic veins is expanded to more than 2.5 mm with a Fogarty catheter. The long-term patency rate awaits observation in a longer follow-up period.

**Key words:** Hemodialysis; Catheter; Autogenous radiocephalic access