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A case of endovascular treatment of total occlusive lesion on vascular access through the rendezvous technique

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Case Study: Introduction
In this case, the outflow drainage maintains blood flow through the collateral vessels. However the diameter of blood vessels is smaller, convulation is observed in the bypassing blood vessels, and strictures are often accompanied, leading to increased venous pressure or arm edema during dialysis. In this case, salvage the main fistula, if possible, is the best treatment.
Case
A 63-year-old male patient with hypertensive ESRD who has undergone Lt radiocephalic AVF surgery. The patient complained of persistent arm edema. Fistulography showed that total occlusion of the cephalic vein was observed in the cubital fossa, 5 cm above the anastomosis, and blood flow was drained into the collateral vessel. [Fig.1] 6 French sheath was applied integrally to juxta-anastomosis, and wiring was attempted with 0.035 inch wire. However, the blood vessel was not found, so another 6 French sheath was inserted into the upper cephalic vein in a retrograde manner, but it was not successful [Fig.2]. After that, it changed to 0.018 inch wire and tried wiring in both proximal and distal, but failed. In Proximal, a RubiconTM 18 support catheter (Boston Scientific, Natick, MA, USA) was inserted to perform wiring at both sides after backup. Afterwards, the wire that entered the proximal to retrograde passed through the lesion. Therefore, angioplasty was performed with a 4 * 40mm balloon (Boston Scientific, Natick, MA, USA), but the remaining stenosis was maintained over 70%, so angioplasty was again performed with a 7 * 40mm balloon (Boston Scientific, Natick, MA, USA) [Fig.3, 4]. Afterwards, the residual stenosis was maintained below 10% and the blood flow to the collateral vessel was also reduced [Fig.5].

Conclusion
In this case, the rendezvous technique approached from both sides and an appropriate back-up catheter can be used to pass the wire and lead to a successful endovascular intervention.

Fig. 1-3

Fig.1 Cephalic vein total occlusion with collateral vessel

Fig.2 Trying wiring on both sides

Fig.3 4*40 mm ballooning

Fig. 4-5

Fig.4 7*40 mm ballooning

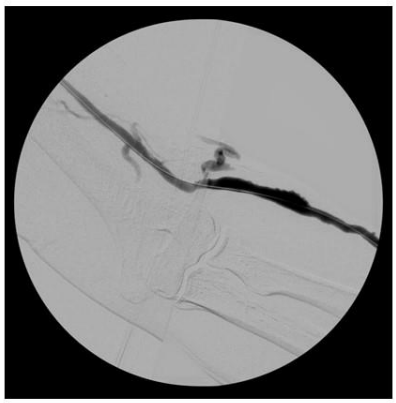

Fig.5 Total occlusion lesion of cephalic vein was not observed. Decreased blood flow to collateral vessels.