Loop Technique in a dual stenosis during shunt dilatation procedure with the AndraTec Exeter Retrieval Snare

General Information: A dialysis shunt system is not a physiological condition. Therefore it is very prone for complications like stenosis and occlusions. An adequate blood flow of 800-1200ml/min allows the shunt for dialysis. Lower flows of < 600 ml/min and the dialysis may becomes inadequate and should therefore be evaluated for a possible stenosis. Dialysis patients are depending on a functional shunt, the flow conditions in the shunt area promote the development of thrombus. This is the reason for an early intervention (PTA or thrombectomy), or a surgical solution with a new anastomoses etc. The amount of dialysis related punctures (every 2-3 days) is changing the structure of the vessel wall as well. A development of calcified lesions, vessel stenosis, Intima hyperplasia is resulting out of that. These factors lead to a reduced blood flow and a shunt insufficiency.

Case presentation:
A 50-year old male dialysis patient was referred to our department to treat a suspected lesion in the upper arm shunt. Angiography revealed 2 very tight stenosis. 1st high grade long stenosis in the brachial and 2nd high grade stenosis in the Vena subclavia in the transition to Vena brachiocephalica sinistra. Fig. 1 / Fig. 2

Material & Technique:
A 5F Terumo sheath has been placed for the 1st puncture in the groin and for the 2nd puncture in the upper arm. A 6x40 PTA balloon has been inserted through the transbrachial access. And a successful PTA has been performed. (Fig. 3)

The Exeter Snare (AndraTec Germany) has then been used to perform a Loop Technique to get the wire down to the Vena subclavia (Fig 4).
Finally a second dilatation of the Vena brachiocephalica has been performed to restore the full flow again. (Fig. 5/6/7)

Conclusion: We have chosen the Exeter Snare (AndraTec GmbH Germany) because of its unique design and because of its low sheath compatibility. The performance makes it our 1st product of choice for foreign body retrieval.