

Abstract**Juxta-Anastomotic Stents in the Native Radio-Cephalic AVF**Tan KL¹, Swinnen J²¹Unit of Vascular Surgery, Department of Surgery, Hospital Kuala Lumpur, Kuala Lumpur, Malaysia²Department of Vascular Surgery, Westmead Hospital, Westmead, New South Wales, Australia.**Introduction:**

Radio-cephalic Fistula (RCF) is the best native Arteriovenous Fistula for hemodialysis. The commonest problem encountered in this fistula is a stenosis in the juxta-anastomotic area (JXA) – the artery just before the anastomosis, the anastomosis and the “swing” vein. Endovascular treatment of this area often leads to stenosis recurrence at the site of treatment or in the adjacent JXA.

Over years, we have developed a technique of stenting in this problematic area, treating the whole complex as a single unit with good short and medium term results. And hence giving patients with non-maturing RCF, failing RCF and thrombosed RCF to dialyse via their native fistulas, avoiding vascular catheter insertion.

Methodology:

A “Retropro” study based on prospectively collected audit data on all JXA stents placed by our unit. Our protocol includes: (1) Aggressive angioplasty with radiological rupture of the stenosis in the majority of cases (2) Placement of a long, nitinol stent “around the corner” to cover the JXA (3) Close follow up with ultrasound (4) Use of Drug Eluting Balloons for recurrent stenosis in the JXA stent

Results:

From 2009 - 2012, we have inserted around 50 JXA stents. 33 patients from 2009-2011 were analysed. Technical success rate was 96.9%. At 6 months, we managed to achieve 100% patency, with primary patency 93.7%, primary assisted patency was 3.1% (1 NIH) and secondary patency rate of 3.1% (thrombosed fistula). Patency at 12 months was 100% with primary patency 58%, primary assisted patency was 21% and secondary patency 21%. The patency at 18 months was 100% with 57.1% of them primary, primary assisted patency was 21.4%, the secondary and secondary assisted patency of 14.3% and 7.1% respectively. Only 8 patients in our data has follow up period up to 24 months, 6 of them (75%) has primary patency and each one for primary assisted patency and secondary patency (12.5% each).

Conclusion:

The JXA area of the AVF is often best treated as a unit, and JXA stenting achieves good short and medium term patency rates. Ultrasonography follows up enable us to pick up problematic fistula but it reduces Primary patency rate. Long term result of JXA stenting need to be followed up.