Balloon and Stenting Are Not Enough For Iliac Vein Obstruction And Reflux: What Else Must Be Done
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Aim:
To outline the pattern of deep vein disease in patients presenting with C5 and C6 venous disease of lower limbs and to ascertain the value of various treatment modalities in their treatment.

Materials and Method:
375 patients (483 limbs) presenting with C5 and C6 disease over a period of 2005 - 2009, a retrospective analysis of prospectively collected data of clinical presentation according to CEAP classification, duplex findings before and after treatment, MR/CT Venography and treatment modalities was carried out with follow-up of 6 months to 3 years. A clinical history of DVT was seen only in 59 (15.73%) patients. 289 limbs (59.8%) were identified on duplex scanning, CT / MR and Digital Subtraction ascending / descending Venography as having obstructive Iliac ± femoral venous disease, 103 limbs (21.3%) purely refluxive disease and 92 limbs (18.85%) combined deep venous reflux in Femoral / popliteal veins with Iliac / Femoro – popliteal vein obstruction / stenosis. In the combined reflux and obstruction group (n=92), Iliac Vein Stenting was performed in 90 cases ± Femoral Vein stenting in 6 patients (absent profundization). Absence of ulcer healing 3 months post-stenting lead to additional procedures in 52 limbs (57.7%) (33 Trapdoor Internal Valvuloplasty and 19 Axillo-Femoral / Popliteal Valve Transplants).

Procedural success rate of stenting was 83/90(92.2%). Primary Patency of stents for Iliac / Femoral Veins was 100% at 3 months to 65/83(78.31%) at a maximum follow up of 3 years. Secondary patency at 3 years follow up was 68/83 (81%). Ulcer Healing following stenting was seen in 38(45.7%) and 36(43.3%) limbs at 3 months. Internal Valvuloplasty patients showed 25/33(75.7%), ulcer healing within 3 months and that stayed up to 23/33(69.7%) at 3 years. Valve Transplants showed an actuarial ulcer healing of 12/19(63.1%) and 9/19(47.3%) at 3 months and 3 years respectively.

Clearly in the combined obstruction and reflux groups there seems to be two groups of patients. One where there is extensive deep venous thrombotic disease in Iliac and Femoral segments where distal valve incompetence is due to thrombo-sclerotic disease: these patient may get only modest improvements in their venous ulcer healing.

The other group is one where there is proximal DVT in Iliac segments and the distal valve incompetence is due to severe functional reflux secondary to venous outflow hypertension: These patients remarkably benefit from distal valve repairs.

Conclusion:
Although Iliac and Femoral Stenting provide excellent results in cases of isolated venous obstruction, they perform averagely in combined lesions of venous obstruction and severe reflux. Addition of time tested techniques to repair refluxive valves may improve outcomes in the treatment of recalcitrant Venous Leg Ulcers.