

Impact of concomitant popliteal vein thrombosis in patients with acute iliofemoral deep vein thrombosis treated with endovascular early thrombus removal

Vincent Frey

Acute deep vein thrombosis (DVT) is the most common presentation of venous thromboembolism. Post-thrombotic syndrome (PTS) and recurrent thromboembolic events are the main long-term complications. PTS can cause chronic pain, swelling, and other symptoms, with a high impact on quality of life of those patients.

Current international guidelines and consensus recommend conservative measures for the management of acute thrombosis, but up to half of patients will still develop PTS. Patients with an initial iliofemoral DVT (IF-DVT) are at particular high risk for PTS. Several randomized trial have suggested that early thrombus removal by catheter-based thrombus removal techniques (CBTR) may prevent chronic vein injury, with sometimes contradictory results. Actually, these options should still be limited to those at highest risk of developing PTS with a high chance of technical success and low risk of procedural complications. However, the impact of thrombus extension down to the popliteal vein in patients with IF-DVT treated by CBTR is currently unknown.

The aim of the present study was to assess the impact at 12 months of concomitant popliteal vein thrombosis in patients with acute IF-DVT treated with CBTR, with clinical and duplex sonographic outcomes, with a control group of patients with only IF-DVT.

Our data showed a higher incidence of post-thrombotic vein lesions and valvular incompetence in the popliteal veins in the extended DVT group but without impact on clinical outcomes or disease-specific quality of life.

In conclusion, results were very favourable regardless of the presence of popliteal vein thrombosis. However, it appeared to be associated with residual post-thrombotic vein lesions and reflux at the popliteal vein level and impacts of these findings remain to be investigated on long term studies.

Jury:

PD Dr. Rolf Engelberger (thesis supervisor)

Dr. Adriano Alatri (external co-examiner)

Prof. Stéphane Cook (supervising professor & internal co-examiner)

Prof. Michael Walch (president of the MD committee)