P1678 ENDOVASCULAR TREATMENT FOR UPPER AND LOWER EXTREMITY DEEP VEIN THROMBOSIS, CASE REPORTS

**Topic:** Thrombosis and vascular biology - Biology & Translational Research

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**Background:**

Guidelines suggest anticoagulation therapy alone over thrombolytic therapy in addition to anticoagulation in the treatment of deep vein thrombosis (DVT). However, endovascular treatment for iliofemoral and subclavian-axillary DVT has been shown useful in reducing post-thrombotic syndrome, with minimal complications. It is reasonable to be considered in young patients with low risk for bleeding.

**Aims:**

To evaluate the efficacy and safety of endovascular treatment in patients with iliofemoral or subclavian-axillary DVT.

**Methods:**

Retrospective descriptive study that included patients with upper or lower extremity DVT who received endovascular treatment, most of them with AngioJet Thrombectomy System, between October 2020 and January 2022 at Hospital Universitario de Navarra.

**Results:**

A total of 20 patients were assessed. Patients were males (n=13) and females (n=7) with mean age of 47.8 years. 13 patients presented lower extremity DVT (65%) while 7 patients (35%) presented upper extremity DVT. 4 patients had pulmonar embolism (PE) at diagnosis. Risk factors for DVT were found in 13 patients: 5 patients had venous Thoracic Outlet syndrome, 3 patients had May-Thurner Syndrome, 2 events happened after surgery, 2 had active cancer and 1 patient had congenital iliac vein stenosis and antiphospholipid syndrome. Initially 14 patients (70%) were treated with low molecular weight heparin (LMWH) at therapeutic doses and 6 patients (30%) with unfractioned heparin (UH). After the first procedure, complete venous patency was achieved in 3 patients (15%), 11 patients (55%) almost complete, partial recanalization in 4 patients (20%) and failure in recanalization in 2 patients (10%). After 24 hours of thrombolytic infusion with alteplase or urokinase: 11 patients required additional angioplasty and 6 patients needed stent placement. Radiological improvement was achieved in 18 patients. After the procedure, 5 patients continued UH infusion and 15 patients received LMWH, switching to oral anticoagulation when possible: 2 patients were treated with a direct oral anticoagulant indefinitely and 16 patients with antivitamin K, 12 indefinitely and 4 switching to antiaggregant. In 2 patients LMWH was kept because active cancer treatment. Before the endovascular therapy, the average of hemoglobin level was 13,12 g/dl and the corresponding 95% confidence interval 13,12±1,45, and 24 hours after the treatment the average was 12,49 g/dl and the confidence interval 12,49±2,02. An important drop in hemoglobin was observed in 3 patients: 2 had cancer and one presented...
hemorrhagic shock with acute renal failure secondary to cave vein haematoma which needed intensive care. Low fibrinogen level (<60 mg/dl) was detected in 3 patients, after endovascular treatment. One of them suffered from congenital hypofibrinogenemia. We reported 3 cases of acute renal failure due to hemolysis as a consequence of acute tubular necrosis after procedure.

**Summary/Conclusion:**

In our study, 45% patients had DVT due to anatomic factors (venous thoracic Outlet syndrome and May-Thurner syndrome). After endovascular therapy, 90% of patients achieved radiological improvement. 80% required long-term anticoagulation therapy.

The main complications were anaemia, renal failure due to hemolysis, hypofibrinogenemia and one case of cave vein haematoma. Endovascular therapy should be performed in selected patients who present a low risk of bleeding. It is important to implement a close monitoring of laboratory parameters.