ABSTRACT

Anticoagulant therapy remains the prevalent treatment for venous thromboembolism (VTE). In the new era of percutaneous endoluminal clot dissolution techniques as catheter directed thrombolysis (CDT) and mechanical aspiration thrombectomy (MAT) devices due to its established short-term benefits. Prophylactic deployment of inferior vena cava (IVC) filter during percutaneous endovenous therapy for lower extremities deep venous thrombosis (DVT) is still debatable issue.

BACKGROUND

Our study aims to retrospectively assess the frequency of embolization and the need for deployment of a retrievable IVC filter during endovenous treatment of proximal lower extremity DVT using percutaneous CDT and MAT techniques.

METHODS

Percutaneous endoluminal clot dissolution using either CDT or MAT for proximal lower extremity DVT was performed on 64 limbs in 58 patients of 148 patients diagnosed with proximal acute/subacute DVT in vascular surgery department of study hospitals. IVC filter was deployed in 31 patients prior or during the procedure.

RESULTS

From 58 patients were treated for proximal DVT with clot debulking procedures, IVC filter was prophylactically deployed in 30 patients (51.7%). Trapped thrombus in the deployed filters as revealed on venocavography was observed in 8/30 (26.7%) filters deployed prophylactically with overall rate of thrombus embolization during percutaneous endovenous thrombus dissolution techniques was 11/58 patients (18.9%).

DISCUSSION

Limitation and Recommendation

Our study was a retrospective study and our patient sample was small, coincidence may be considered as a reason of our findings. With most studies reporting the risk of PE with CDT to be very low, larger studies with very specific selection criteria are needed to make such recommendations. Mechanical aspiration thrombectomy techniques require more evaluating controlled studies to clarify the safety of this procedure with or without filter placement.

CONCLUSION

• Catheter directed thrombolysis could be done safely and effectively without routine prophylactic IVC filter placement in treating acute DVT. Selective filter placement may be considered in patients undergoing mechanical thrombectomy or patients with more proximal thrombus pattern with multiple risk factors.

No disclosures