



PERCUTANEOUS ENDOVENOUS INTERVENTION REDUCES POST THROMBOTIC SYNDROME AND RECURRENT VENOUS THROMBOEMBOLIC DISEASE IN ACUTE DEEP VENOUS THROMBOSIS

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Background: Post-thrombotic syndrome (PTS) may occur in up to 50% of patients with deep venous thrombosis(DVT), and recurrent venous thromboembolism(VTE) in 20% despite effective anticoagulation. The purpose of this study was to assess whether early percutaneous endovenous intervention (PEVI) reduces these rates.

Methods: Over a 28 month period 172 patients with acute proximal DVT were initially randomized to standard therapy with heparin or Lovenox and warfarin(Control Group= CG= 87) and Interventional Group(IG= 85) who received standard therapy plus PEVI within 24 hours .PEVI consisted of any of: thrombectomy with Angiojet or Trellis device, local thrombolytic therapy, balloon venoplasty or stenting. The affected vein segments were divided into 5: two femoro-popliteal and iliac; and 1 inferior vena caval (IVC). All patients received compression stockings and underwent clinical and venous duplex evaluation in 6 months. The IG underwent popliteal vein cannulation and received a retrievable IVC filter. PEVI success was defined as establishment of streamline flow with reduction of thrombus to <30% of luminal area. 8 patients from CG crossed over to IG as their symptoms were worsening on standard therapy.

Results: The results at 6 month follow up are shown in table.PEVI was successful in all patients.

Conclusions: Our results indicate that early PEVI markedly reduces PTS from 42% to 3% and VTE from 18% to 2%. We recommend a paradigm shift in the approach to DVT with an early catheter- based intervention.

Table. Results at 6 months

	No.	Age (yr)	Male(%)	Pulmonary Embolism at presentation(%)	Mean involved DVT segments	MildPTS(%)	Moderate PTS(%)	Severe PTS(%)	Recurrent VTE(%)
IG	93	60	44(47)	42(45)	2.1	3(3)	0	0	2(2)
CG	79	64	39(49)	34(43)	1.8	24(30)	7(9)	2(3)	14(18)