[P-S-398] FIBRINOLYTIC PARAMETERS IN CHILDREN WITH NON-CATHETER RELATED DEEP VENOUS THROMBOSIS

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Introduction: Hereditary and acquired deficiency of fibrinolysis is known to predispose to thrombosis in adults. However, the role of hypofibrinolysis in the pathogenesis of non-catheter related deep venous thrombosis (nCDVT) in children has not been investigated. Our study objective was to compare fibrinolytic parameters in children with nCDVT to those of normal controls.
Methods: Eighteen children with nCDVT were compared to sex and age matched healthy children. We measured fibrinogen, plasminogen, lipoprotein (a), platelet count, plasminogen activator inhibitor-1 (PAI-1), plasmin-antiplasmin complex and tissue plasminogen activator (TPA) levels. In vitro fibrinolysis was measured on TEG® using rTPA. Lysis was compared at 30 (Ly30), 60 (Ly60) and 90 (Ly90) minutes.
Results: There were no significant differences in platelet counts and coagulation parameters between nCDVT patients and controls. Additionally, clotting and fibrinolytic parameters on TEG® were not statistically significant between the two groups. Two patients and three controls had high PAI-1 levels. In them, TEG® parameters showed low fibrinolysis proportional to PAI-1 activity.
Table:

PAI activity and Lysis

	Patient 1 (PAI-1 = 100IU/ml)	**Patient 2 (PAI-1= 60IU/ml)**
Ly30 (%)	0.4	1.11
Ly60(%)	2.29	4.43
Ly90(%)	4.9	7.45

Conclusions: From our study, we conclude that hypofibrinolysis does not contribute to pediatric nCDVT. Additionally, we have demonstrated that the TEG® is sensitive to elevations in PAI-1 activity, providing a rapid assessment of the patient's inherent fibrinolytic capacity. This could be used as a potential tool in determining the optimum therapeutic dose of rTPA for thrombolysis.
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