

Supplementary Abstracts

Coagulation, Clinical

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HYPERCOAGULABILITY IN ACUTE ESOPHAGEAL VARICEAL BLEEDING. E. HILLER, F. HEGEMANN and H. RIESS. Medizinische Klinik III, University of Munich, Munich, FRG.

In 15 patients with acute esophageal bleeding selected parameters of hypercoagulability were determined at frequent intervals during intensive care treatment. Estimation of soluble fibrin monomer complexes (SFMC) by gel filtration of plasma samples which were purified by β -alanine precipitation allowed the determination of the relative amount of SFMC (percentage of SFMC in relation to the total fibrinogen content in plasma). Antithrombin III (AT III) activity was determined photometrically using the chromogenic substance S-2238 and immunologically by one dimensional immunoelectrophoresis. Fibrin split products (FSP) were estimated by the staphylococcal clumping test.

Increased levels of SFMC were observed in 10 out of 15 patients on admission. A further increase was noted in most patients in whom bleeding persisted and who needed replacement therapy with blood components. Substitution with prothrombin complex concentrates induced acute DIC in two patients with levels of SFMC up to 24 %. AT III was decreased to levels of 30-50 % in 8 patients during the acute illness. A discrepancy between the functional and immunological AT III value was noted in some instances but more often both values were very low.

High levels of SFMC in addition to levels of AT III of less than 50 % reflect a serious state of hypercoagulability with a very poor prognosis for the patients. Clotting factor concentrates may be especially thrombogenic in these patients with impaired clearing activity. Fresh frozen plasma and AT III concentrates provide an appropriate source of the most important clotting factors.

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SPECIFICITY AND SENSITIVITY OF SOME COAGULATION TESTS IN VARIOUS THROMBOTIC DISEASES. J.J. Rodzynek, P.L. Schoenfeld, P. Léautaud, T. Martin, P. Wettendorff, A. Delcourt. Department of Internal Medicine, Ixelles Hospital, Brussels Belgium.

Fibrinogen degradation products (FDP), Ethanol gel test (EGT), citrated whole blood thrombo elastogram (TEG) and its several parameters (r, k, am, IPT), Raby's transfer test (RTT) and Wu's circulating platelet's aggregates (CPA) were studied in 52 healthy volunteers acting as normal controls, in 205 consecutive patients admitted in a general hospital for various non-thrombotic pathological situations (group 1), and in 14 consecutive patients admitted for deep vein thrombosis, pulmonary embolism or acute coronary insufficiency (group 2). The percentage of positivity of the aforementioned tests appeared as follows :

	FDP 20µg/ml	EGT positive	TEG					RTT	CPA
			r 12mm	k 5mm	am 60	IPT 25	0.85		
gr.1	11%	6%	13%	37%	46%	39%	11%	37%	
gr.2	57%	36%	21%	43%	71%	79%	71%	64%	

In conclusion :

1. TEG and CPA are of doubtful help in separating thrombo-embolic situations from other pathological conditions.
2. EGT disclosed a better specificity (6% false positive) but its sensitivity is poor (64% false negative).
3. Good specificity altogether with sensitivity in diagnosing thrombo-embolic situations is better achieved by FDP (11% false positive and 43% false negative) and even better by RTT (11% false positive and 29% false negative).