1056 ON THE EFFECTS OF A HEMOSTASIS ACTIVATING FACTOR (HaF) FROM SUBCUTANEOUS TISSUE ON PLATELET RETENTION

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Extracts of human subcutaneous tissue with a very low thromboplastic activity strongly stimulate platelets (sphering and pseudopode formation) within seconds if added to blood directly at blood sampling (30 µl/ml citrate blood). To study the effect of this hemostasis activating factor (HaF) on platelet retention a special glass bead column with basically low retention (0-15 % in healthy individuals) was prepared. If HaF (50µl/ml) was added to freshly drawn citrate blood retention was increased from a mean of 12 % to a mean of 57 %. Even higher retention rates were obtained by adding a cryoprecipitate from normal PPP (50µl/ml) together with HaF. 100µl/ml of cryoprecipitate markedly enhanced platelet retention. Feiba^{R} (Immuno) alone did not increase platelet retention. Together with HaF Feiba^{R} (50µl/ml citrate blood) induced a 85% retention. The enhancing effect of HaF on platelet retention is probably caused by rapid platelet stimulation and may be an essential trigger mechanism for primary hemostasis.

1057 SIMPLIFIED DETERMINATION OF FIBRINOGEN SUBFRACTIONS BY GLYCINE

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Although it has been suggested by some investigators that human plasma fibrinogen is composed of two or more subfractions, no simple method of determining these fractions individually has been available for clinical use. We found that precipitation by glycine at certain ionic strength was suitable for this purpose. One volume of human plasma was added to 10 volume of 2.3 M glycine solution of varying ionic strength. Analysis of the precipitates obtained at various ionic strength by means of SDS-gel electrophoresis gave the following results: The precipitate obtained at ionic strength 0.2 gave single band. Its molecular weight was 360,000, clottability 85 %. The supernatant was devoid of this fraction. The precipitate obtained at ionic strength 1.4 gave two bands corresponding to molecular weight of 360,000 and 325,000 respectively. The clottability of the precipitate was 85 %. The supernatant contained no significant amount of clottable protein. It is therefore possible to determine the concentrations of high molecular fraction of fibrinogen and of total fibrinogen in plasma using the precipitate at ionic strength 0.2 and the precipitate at ionic strength 1.4 respectively. The difference of the two values gives the concentration of low molecular fraction of fibrinogen. Biological properties of the two fractions were also studied.

1058 COAGULATION STUDIES DURING OPERATIVE SURGERY

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The rate of thrombin induced platelet aggregation using the Chandler's Tube technique, has been compared with changes in 'intrinsic' clotting and ADP - induced aggregation. Some of the results from operations with a high risk of developing venous thromboses provide suggestive evidence of circulating tissue thromboplastin activity. The significance of this in relation to heparin prophylaxis and its laboratory monitoring is discussed.

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