

N. Sakuragawa, K. Takahashi and M. Matsuoka (Niigata University School of Medicine, 951 Niigata, Japan): **The Significance of Prothrombin Assay Method Using Echis Carinatus Venom in Disseminated Intravascular Coagulation Syndrome.** (361)

Prothrombin is decreased in disseminated intravascular coagulation syndrome (DIC). Prothrombin is estimated by the assay method using echis carinatus venom: 0.1 ml of 0.1% fibrinogen solution, 0.1 ml of one to ten diluted specimen and 0.1 ml of echis carinatus venom solution (0.01 mg/ml) are mixed in the test tube at 37° C, and checked clotting time. From the standard calibration curve, prothrombin is shown by percentage in a normal person.

Prothrombin activity by the regular assay method using tissue thromboplastin is lower than the assay method using echis carinatus venom in DIC.

Thrombin which is produced in the blood of DIC splits prothrombin molecule to prothrombin. Prothrombin cannot be assayed by using tissue thromboplastin, but assayed rather by echis carinatus venom. This fact is proven from the results of SDS-disc electrophoresis pattern of purified prothrombin activated by thrombin or echis carinatus venom, by animal studies of DIC rabbit infused with thrombin, and by examination of DIC blood.

The assay method using echis carinatus venom is concluded to be useful to diagnose DIC.

J. Conard, P. Morisot, C. Huguet and M. Samama (Hôtel-Dieu, 75181 Paris Cedex 04, France - Hôpital Saint-Antoine, 75012 Paris, France): **Coagulation and Fibrinolysis During and after Hepatic Lobectomy in 17 Patients.** (362)

Hepatic lobectomy was performed in 17 patients for tumor (15 cases) or for hepatic cyst (2 cases). With regard to the hepatic lobes resected, there are 2 left lobectomies, 3 right, 9 right extended to the medial segment of the left lobe, 1 atypical resection of the right lobe and 1 of the left lobe, and 1 total hepatectomy followed by hepatic homotransplantation. In 9 patients, laparotomy showed that resection was not possible and they are used as controls.

Blood samples were drawn every 30 minutes during operation, every day or every other day during the two post-operative weeks.

Increased fibrinolytic activity and positive ethanol gelation tests are frequent but transient during surgery. However hemorrhagic problems are not encountered if hepatectomy is regulated. Routine administration of PPSB, antifibrinolytics or heparin does not seem to be required.

Variations of clotting factors and antithrombin III are observed during the days following surgery.

B. Schreinert (Kinderklinik MHL, D 24 Lübeck, Fed. Rep. Germany): **On the Diagnostic Criteria of DIC in Childhood and the Indication of Streptokinase Therapy in Various Primary Diseases.** (363)

In contrast to the diagnostic parameters of disseminated intravascular coagulation (DIC) in adults the criteria in children must be new defined. The value of the levels of fibrinogen, F V, VIII, XIII, FDP, fibrinmonomers, and the platelet count are quite often different in adults and children as demonstrated. The results were taken from 144 healthy children and 42 paediatric cases of DIC in various primary diseases with special respect to the spontaneous and induced platelet aggregation as an important diagnostic symptom in early DIC. As a result of the investigation new criteria of DIC in childhood as an indication for a thrombolytic therapy are presented and discussed. The main role in this new concept play the platelet count and function, the levels of F V, VIII, and the presence of FDP and fibrinmonomers as a supplement of the global coagulation tests. Finally the approach in DIC in childhood will be represented.