

Abstracts

SEVENTH ANNUAL MEETING

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- 1** THE NORMAL BLOOD PLATELET AND ITS FUNCTION.
H. Stormorken, Institute of Thrombosis
Research, National Hospital, Univ. of Oslo,
Norway.

Recent research both on the morphological and biochemical level has greatly advanced our knowledge about the platelet and its interaction with the vessel wall and plasmatic factors. The platelet membrane makes platelets unique in their properties to adhere to other surfaces (adhesion) and to each other (aggregation), the main basis for their functional task: to prevent and to stop bleeding. This basic function is governed by vessel wall factors (eg. collagen) representing the initial stimulus, by plasmatic factors such as von Willebrand factor and fibrinogen, by platelet membrane receptors, of which some are identified, and of platelet membrane phospholipids providing the arachidonic acid necessary for thromboxane synthesis and further by compounds contained in the platelet cytosol (cyclooxygenase, thromboxane synthetase and the cyclic AMP system), and in the granules (eg. ADP), which together are necessary for the release reaction and thus for providing the physiological aggregating stimulus, ADP. The release process can also be imitated by other biological compounds including thrombin, thus linking coagulation and platelet function.

- 2** DEMONSTRATION OF PLATELET ANTIBODIES IN IgG FRACTION OF CHILDREN WITH ITP.
Ozsoylu, S., Ozturk, M., Laleli, Y., Section of Hematology, Department of Pediatrics, Hacettepe University Faculty of Medicine, Ankara, Turkey.

Decreased platelet survival in remission as well as in relapse in children with ITP was shown by us. Anti-platelet in the sera of these children were also shown by us by using opsonophagocytic test of Handing and Stossel.

In this study, IgG, IgM and IgA fractions of the sera of these patients were separated by column chromatography and the platelet antibodies were looked for in these fractions by the above method. Although IgG and whole serum showed similar opsonophagocytic activity, it was not shown neither in IgA nor IgM fractions. This activity in IgG fraction disappeared following breaks of its disulphid bonds.

Following absorption with erythrocytes, lymphocytes and platelets, the specificity of the antibodies to platelets are indicated.

- 3** A MICRO-METHOD FOR DETECTION OF THROMBOCYTE ANTIBODIES.
O.J. Bergh, M.S. Beck, E. Thorsby, B.G. Solheim, Tissue Typing Laboratory, Rikshospitalet, The National Hospital, Oslo 1, Norway

A micro-method using FITC and ¹²⁵I-labelled protein A for detection of auto and alloantibodies to human thrombocytes will be presented. The isotope method is based on the use of microtiter plates with 96 wells and Flow Supernatant harvester which permits large scale testing of cell-serum combinations.

Clinical applications of the test for detection of in vivo and in vitro sensitization of platelets will be demonstrated together with case reports.

- 4** VINCRISTINE LOADED PLATELETS IN THE TREATMENT OF IDIOPATHIC THROMBOCYTOPENIC PURPURA (ITP).
G. Schaison, J.L. Harousseau, G. Tobelcm, A. Bussel, Hopital St-Louis, Paris, France.

Chronic ITP is the most common autoimmune disorder in childhood. Splenectomy is prohibited before 5 years old and after is successful in only 70 % of the cases. With corticosteroids some chronic ITP seem to respond but long term treatment leads to undesirable side effect. Use of immunosuppressive agents is open to criticism in childhood.

Y.S. Ahn has reported treatment of refractory ITP in adults with Vinblastin loaded platelets with 6 complete remissions, 3 partial remissions and 2 failures. It is demonstrated that Vinca is concentrated by the platelets. The complex is rapidly cleared and ingested by macrophages leading to their destruction.

10 children from 2 to 15 years old were treated in our department with Vincristin loaded platelets. All had chronic ITP lasting from 1 to 12 years. Steroid had given good transitory results in 4 cases. 4 cases had been previously splenectomised with failure. There were 1 good result and 3 partial transitory remissions.

Among 15 adults we have 2 good results.

The discrepancy between Ahn's and our results is discussed according to the total amount of vinca alcaloid incubated and the number of platelets infused.