Ristocetin and Platelet Membrane Disorder

Level 6 – Terrace (Green Side)

Free Poster Session 11.30 – 12.45

Poster Board P6-092

0969 GLANZMANN'S THROMBASTHENIA : SURFACE LABELLING BY VARIOUS TECHNIQUES AND ANALYSIS BY GEL ELECTROPHORESIS.

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The surface membrane glycoproteins of glanzmann's thrombasthenia and normal whole platelets were labelled by techniques specific for either sugar or protein moieties. The labelled platelets were solubilized and electrophoresed in reduced or unreduced state by discontinuous SDS-polyacrylamide gel electrophoresis. Galactose oxidase + NaB^3H_4 labelling, showed with reduced samples 4 glycoprotein bands : a high M.W. glycoprotein and GP Ia, GP Ib, GP IIIb more intensely labelled than with control platelets but with similar M.W. After treatment with neuraminidase + galactose oxidase + NaB^3H_4 to remove terminal sialic acid and label penultimate galactose residues the gels showed on both unreduced and reduced samples the absence of PG IIb and IIIa and a relatively broad and intensely labelled GPIb band compared with control platelets. The use of sodium periodate + NaB^3H_4 to label predominantly sialic acid moieties gave essentially the same number of GP bands in both reduced and unreduced samples as in normal platelets. Lactoperoxidase iodination showed in thrombasthenic platelets both in the reduced and unreduced states the absence of GPIIb, GPIIIa and more intensely labelled GPIb and GPIIIb than with control platelets. The combination of multilabelling and discontinuous polyacrylamide gel system provides a reliable method for investigating the platelet surface.

P6-093 **0970** ACQUIRED THROMBASTHENIA IN NON HODGKIN'S LYMPHOMA

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A patient with non-Hodgkin's lymphoma developed a typical thrombasthenic defect confirmed by platelet aggregation. The patient's plasma was capable of inducing an identical defect in normal platelets. Patient's platelets were found to be coated with IgGK and IgAK when studied by immunofluorescent techniques. Immunoglobulin of similar specificity was demonstrated in tumour at autopsy. IgAK specific antibody to normal platelets was found in the plasma.

The finding of this autoantibody mirrors the observation of Levy-Toledano et al (1978) Blood, 51, 1065 in which a similar isoantibody was demonstrated in a multitransfused thrombasthenic patient.