Circulating Immune Complexes in Patients with Haemophilia and von Willebrand's Disease

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Patients with haemophilia or von Willebrand's disease received repeated infusions of large amounts of plasma or antihæmophilic factor concentrates. Some of the hæmophilic patients developed a factor VIII inhibitor or antibodies against other antigens contained in the concentrates.

Prior to transfusion, in 63 patients with haemophilia A, the presence of circulation immune complexes (CIC) was detected in 31 % of the cases, by the conglutinin-binding assay (Cg BA) which allows quantitation of C3b-bearing immune complexes. By this method, CIC were also detected in 4 of 6 patients with FI, 6 of 11 patients with haemophilia B and 3 of 10 patients with von Willebrand's disease. By the Clq binding assay (Clq BA) the presence of CIC was detected in 22% of patients with haemophilia A. Levels of CH₅₀, C3, C4 and factor B were within normal limits. Abnormally high levels of C3d were found in 28% of patients with haemophilia A. The presence of CIC in these patients did not correlate with the age of the patient the number of transfusions

or the presence of HBs Ag or HBs Ab in the serum. Levels of CIC were determined by the Cg BA before and 24 h after transfusion of cryoprecipitate in 20 patients with haemophilia A. The mean value before transfusion was 12.55 ± 22.39 AHG μ g eq/ml and 24 h after 27.55 ± 35.15 AHG μ g eq/ml (p 0.01). Serial studies in 5 patients showed that the levels of CIC remained constant 24.48 and 72 h after injection of cryoprecipitate.

At present

further studies are in progress to characterize the composition of these immune complexes and their relation with the administration of factor VIII.