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The isolated polypeptide chains of factor Va have, in the presence of factor Va, no effect on the kinetic parameters of the prothrombin activation. This led us to conclude that there is no interaction between factor Va and the separate polypeptide chains of factor Va.

The affinity of factor Xa for negatively charged phospholipid or activated bloodplatelets is greatly enhanced by the presence of factor Va. Our Kd values measured for the Xa-Va complex in combination with reported dissociation constants of factor Xa-phospholipid and Factor Va-phospholipid complexes give a quantitative for the above mentioned effect of factor Va on the binding of factor Xa to phospholipid membranes.

INHIBITION OF HUMAN FACTOR Xa BY VARIOUS PLASMA PROTEASE INHIBITORS. M.F. Scully, V. Ellis, I.R. MacGregor, and V.V. Kakkar. Thrombosis Research Unit, King's College Hospital Medical School, London, England.

In the second section, we consider the interaction of human factor Xa with antithrombin III (in the absence of heparin) α1-antitrypsin and α2-macroglobulin have been determined at pH 7.4 (300mM Tris HCl, 0.1M NaCl) in the presence of CaCl2. Factor Va (free of activation peptide) and α1-antitrypsin were purified from outdated human plasma. The isolated polypeptide chains of factor Va have, in the presence or absence of factor Va, no effect on the kinetic parameters of the prothrombin activation. This led us to conclude that there is no interaction between factor Va and the separate polypeptide chains of factor Va.

The affinity of factor Xa for negatively charged phospholipid or activated bloodplatelets is greatly enhanced by the presence of factor Va. Our Kd values measured for the Xa-Va complex in combination with reported dissociation constants of factor Xa-phospholipid and Factor Va-phospholipid complexes give a quantitative for the above mentioned effect of factor Va on the binding of factor Xa to phospholipid membranes.