**TEROL FED RABBITS. T.J.**

rabbits show a decreased responsiveness to noradrenaline, obtained from these animals revealed a substantial amount. An microscopic examination of the luminal surface of the aortas of control and cholesterol-fed rabbits. Aortic tissues. The maximal responses and the ED_{50}-values of aortas are comparable in both groups of blood vessels. No significant differences were observed when platelets obtained from either control or cholesterol-fed rabbits were compared. In the control and the atherosclerotic aortas the serotonin receptor antagonist ketanserin at 5x10^{-8}M nearly abolished the responses to platelets in both groups of aortas. These experiments illustrate that (1) the contractions induced by rabbit platelets in control atherosclerotic aortas are mediated by serotonin and (2) the responses to platelets, as those to serotonin, are augmented in the atherosclerotic preparations.

**Diet, Haemostasis and Thrombosis**

**The Effect of Two Cholesterol-Lowering Agents on Platelets in Patients with Hypercholesterolemia.** A. Nørløv, T. Simonsen, K. V. Hansen and B. Sørensøn, Dept. of Medicine, University Hospital, Tromsø, Norway

Twenty-one subjects with type IIa hyperlipoproteinemia, receiving dietary treatment were given Suvonilin (MK-733), a HMG-CoA reductase inhibitor, 40 mg or Cholestyramin (Questran) 24 g daily for a period of 12 weeks. Serum lipids, platelet cholesterol, phospholipids and fatty acid composition and platelet function were measured before and after the intake of the two drugs. Both drugs reduced serum total cholesterol with approximately 30%. No significant changes were observed in platelet lipid concentrations or in the primary bleeding time. Collagen induced aggregation and thromboxane (TXA2) production were reduced, whereas thrombin induced aggregation and TXA2 production were unaffected. This study shows that both a cholesterol synthetase inhibitor and Cholestyramin reduce the total serum cholesterol concentration and also reduce platelet aggregation and thromboxane synthesis without changing the platelet cholesterol content or the cholesterol/phospholipid ratio. The effect on serum lipids and platelet function may indicate a beneficial effect of both drugs on arterial disease in patients with hypercholesterolemia.

**Increased Factor VII Reactivity in the Rabbit Following Diet-Induced Hypercholesterolaemia.** R.A. Mitropoulos (3), S.J. Walter (2), T.H. Nenda (1) and N.P. Kennd (2). MRC Epidemiology and Medical Care Unit, Northwick Park Hospital, Harrow, Middlesex (1) and Nuffield Department of Clinical Biochemistry, The Radcliffe Infirmary, Oxford (2), U.K.

The association of factor VII coagulant activity (VII_c) with plasma lipid concentrations has been a consistent feature of atheroma in man and points to plasma lipoproteins as determinants of VII_c. To modify plasma lipoprotein concentrations and to study the effect of this on VII_c, rabbits were fed a 1% cholesterol-supplemented diet. Treatment resulted in a many-fold increase in plasma cholesterol concentration with the major fraction of excess cholesterol associated with the very low and intermediate density lipoprotein fractions. VII_c was considerably higher in rabbits fed 1% cholesterol-supplemented than in rabbits fed the standard diet. In both groups of rabbits, the direction and extent of variation in VII_c, coincided with variation in cholesterol concentration so that over time there were significant and positive correlations between VII_c and plasma cholesterol. A method was developed to measure the total functional factor VII concentration (VII_{f}) and this was also used. This assay involves clotting the plasma in the presence of excess tissue factor and therefore the conversion of all VII to the more reactive two-chain form of the protein (VII_{f}). The concentration of VII_{f} present in the serum was measured from the rate of appearance of excess of [3H]-bovine factor X. By day 10 of treatment, and in all further comparisons VII_{f} was only slightly higher in the group of rabbits fed cholesterol-supplemented than in the standard diet. This increase in VII_{f} is too small to explain the considerable increase in VII_c in the hypercholesterolaemic rabbits. We conclude that this was due to a higher proportion of VII_{f} in the plasma of hypercholesterolaemic rabbits rather than to an increase in the concentration of the single-chain protein.