MIXED POSTERS III

Thrombosis

A NEW PRIMARY FIBRINOLYSIN FROM MAMMALIAN BILE. J. B. King. Department of Medicine, Groote Schuur Hospital and University of Cape Town, Cape Town, South Africa.

This primary fibrinolysin, termed cholelysin, has been found in the bile of all mammalian species tested so far. Ox bile has been studied in detail. This was freed of bile salts by adsorption on DEAE sephadex or the anion exchange resin Ag 1-X8, precipitated by ammonium sulphate, redissolved, and eluted off a Whatmans DE 32 column. A further stage of purification on sephadex G 75 was sometimes added, followed by freeze drying.

This purified product gave one or two bands following sodium dodecyl polyacrylamide gel electrophoresis. These bands contained sharply delimited lytic activity when tested on a standard fibrin plate. Molecular weights were estimated at 10 000 and 20 000 respectively, suggesting the presence of two polymers. Fibrin split products differed from those produced by plasmin.

Cholelysin was actively fibrinolytic on a fibrin plate that had been heated to 80° for 30 minutes, caseinolytic, and active against synthetic substrates such as benzoyl arginine methyl ester. It was inhibited by a substance present at the inter-alpha anti-trypsin position in both human and rat serum. Using a rat model originally developed to test the anticoagulant activity of arvin, intravenous cholelysin was shown to have significant anticoagulant activity.

FIBRINOLYTIC ACTIVITY OF HYDATIDIFORM MOLAR TISSUE. F. H. M. Tsakok and S. S. Ratnam. University of Singapore, Department of Obstetrics and Gynaecology, Kandang Kerbau Hospital, Singapore.

Intravascular coagulation has been previously suspected in hydatidiform molar pregnancy (McKay 1965) and isolated cases have been described (Egley 1974). Recently a comprehensive coagulation profile in 18 intact hydatidiform molar pregnancies has been reported (Tsakok 1976). These studies showed evidence of abnormal proteolysis with activation of the coagulation system and the fibrinolytic system in varying degrees. In the present work the fibrinolytic activity of fresh molar tissue from 16 patients was studied by the fibrin plate method (Nilsson 1962) and by histochemistry (Pandolfi 1972). The fibrinolytic activity was compared with fresh normal placental tissue.

Marked fibrinolytic activity was found in the hydatidiform molar tissue as compared to none in the normal placenta. Increased fibrinolytic activity of hydatidiform mole may be the cause of early, prolonged and heavy uterine bleeding in such abnormal pregnancies. This may be due to local activation of the fibrinolytic system.