
Degradation products of human fibrinogen formed by the action of "Caterpillar" (a proteolytic substance from the hemolymph of a saturniid moth caterpillar) was studied by immunonephelometry and polycrylamide gel electrophoresis. The pattern of X, Y, D and E degradation products was compared to those formed by the action of plasmin and trypsin. Chain characterization during the degradation process indicated a very rapid loss of the α chain.


The frequent appearance of FDP during the postoperative of cardiovascular surgery using extracorporeal circulation, induced us to determine its diagnostic value. 17 patients were studied. Fibrinolytic activity was determined using the staphyloccocal clumping test (SCT) and the latex plasmin-antiplasmin immunoassay (LPA). Normal value of LPA in plasma previously studied in 15 normal patients was negative to positive up to a dilution of 1/4. Normal value of SCT in our laboratory (in 200 normal patients studied) was less than 100 mg/ml. All postoperative periods were normal and from 1 to 6 tests using both methods were performed. From 26 SCT readings, 27 were positive (in 13 patients) with a mean of 10.2 μg/ml (range 1.2-96.8). Positive LPA was found in 5 readings in 4 patients. In only 2 cases the SCT detected high concentration of FDP together with strong positive LPA (dilutions 1/10 and 1/20). It is concluded that the frequent appearance of FDP during early postoperative period of cardiovascular surgery, because of the low incidence of positive LPA, does not necessarily indicate plasmin fibrinolytic activity, as it is possible that this should appear as a result of absorption of extravascular resolution of fibrin related material.

CHARACTERISATION OF SERUM FDP PRODUCED DURING ENHANCED FIBRINOLYSIS. D.A. Lane and V.Y. Kakkar. Thrombosis Research Unit, King's College Hospital Medical School, London.

The serum FDP produced in patients in response to defibrination with ancol and to thrombolytic therapy with reteplase or streptokinase/plasminogen infusion have been characterised using a method of solid phase immuno precipitation followed by polycrylamide gel electrophoresis in the presence of sodium dodecyl sulphate (1). Using this method it is possible to distinguish between the plasmin degradation products of fibrinogen and Factor XIIIa induced crosslinked fibrin. During ancol administration, fragments of similar mobility to fibrinogen fragments X, Y, D and E are present in serum samples taken 24 hours after the initiation of treatment, while subsequent sera contain mainly fragments with the same mobility as fibrinogen fragment D. The intermittent nature of the streptokinase/plasminogen infusions produces fibrinogen fragments X, Y, D and E in the sera 1 hour after each daily streptokinase/plasminogen administration. There was an early clearance of fragment E from the circulation of patients receiving either ancol or streptokinase/plasminogen infusions. The presence of the D thinner fragment, which is produced only by plasmin lysis of fibrin crosslinked with Factor XIIIa, could not be conclusively confirmed in either group of patients.