Poster Board P4-124

0697 TREATMENT OF SEVERE PULMONARY EMBOLISM BY RAPID INJECTION OF UROKINASE.

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Twenty severe pulmonary emboli (8 of which occured within 8 days of an operation) were treated by the injection, in a few minutes, of 10,000 to 15,000 CTA units/kg of Urokinase by peripheral (6 cases) or central (14 cases) IV route in conjunction with immediate effective heparinization. These severe pulmonary emboli were characterized mainly by a state of shock reversible a few hours after the administration of Urokinase; 50% devascularization shown by diagnostic angiography, improved by an average of 41% in angiography 5 days after administration of Urokinase; hypoxemia in unaided breathing (average PaO<sub>2</sub>: 40 Torr). Three deaths occurred 7, 31 and 40 days after Urokinase. In comparison with classic methods of treatment with Urokinase (UK<sub>II</sub> 85% - UK<sub>I</sub> 15%), this procedure is well tolerated, less dangerous (in terms of the bleeding factor), less costly and simpler; but its efficacy, while evident, should be determined with accuracy.

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TREATMENT OF SEVERE PULMONARY EMBOLISM BY UROKINASE AND LYSYL-PLASMINOGEN.

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The effects of the heparin (H)-Urokinase (UK) treatment on pulmonary emboli (PE) are limited by the rapid disappearance of the plasminogen (Plg) contained in the clots. Two groups of patients with recent PE (less than 8 days) of equal severity (as judged by angiography) have been studied: Group I (15 patients) treated by H (500 IU/kg/24h) and UK (i.v. bolus 15,000 u.CTA/kg/20min) and Group II (15 patients) receiving H and a sequential treatment with a bolus of UK followed by Lysyl-Plg infusion (300 UI/kg/6h), then by a 2nd bolus of UK and finally by a Plg loading. Angiography and catheterization were performed before and 24 hours after the treatment. The vascular obstruction (VO%) was appreciated by the UPET method. In Group II, the values before treatment were: VO 57+11%; mean pulmonary arterial pressure (PAP): 30+5 torrs; cardiac index (CI): 2.0+0.6 I/min/m2; pulmonary arterial resistances (PAR)  $8.4\pm2.7$  torrs/I/min/m2; PaO2:  $56\pm7$  tors. The UK + Plg treatment elicited significant changes: 50% decrease in VO and PAR, 33% decrease in PAP and 30% increase in PaO2 and C1 in 24 hours. One month later, hemodynamic was normal and the residual VO was less than 15%. In Group I the initial hemodynamic values were similar but the 24 hours decrease in VO, PAP and PAR were respectively of 30, 22 and 29%, differing significantly of the Group II (F test). After one month, the residual VO was 25%. These observations suggest that Lys-Plg loading increases significantly the efficacy of thrombolytic treatment of massive and recent PE.

P4-126 0699 IMPAIRED BLOOD AND TISSUE FIBRINOLYSIS IN PATIENTS WITH RECURRENT VENOUS THROMBOSIS

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Blood and tissue fibrinolysis were studied in 70 patients(p.) with recurrent venous thrombosis. The fibrinolytic activity and the release of plasminogen activators "fibrinolytic capacity" by 10 min. venous occlusion were detected by using acetate-buffered diluted clot lysis time, euglobulin lysis time and resuspended euglobulin precipitate on unheated fibrin plates. Plasminogen activator content in the wall of superficial hand veins in 40 p. was measured by Pandolfi's modified histochemical technique. Our studies showed a significantly low content of plasminogen activators in the vessel walls in more then 60% of p. in good correlation with blood defective fibrinolytic activity and/or capacity.