PROSPECTIVE STUDY ON THE VALUE OF A SINGLE INFUSION OF DEXTRAN 70 DURING SURGICAL OPERATION IN THE PREVENTION OF FATAL POSTOPERATIVE PULMONARY EMBOLISM (PE). Karl-Gösta Ljungström. Surgical Clinic, Danderyd's Hospital, Sweden.

At Danderyd's Hospital a controlled clinical trial of dextran 70 using phlebography in all patients demonstrated a significant reduction in postoperative deep venous thrombosis (DVT) from 52% in the untreated control group to 4% in the dextran group. Johnson et al. 1968. As a consequence, routine prophylaxis of postoperative DVT with dextran 70 was instituted for all patients over 50 years of age undergoing abdominal, orthopedic or urological surgery. A retrospective investigation of the result of this two-year period of routine prevention with dextran 70, which was preceded and superceded by 2 two-year periods when no dextran was given, revealed the following sequence of fatal PE verified at autopsy over the six-year period: 15 (no prophylaxis), 6 (dextran) and 15 (no prophylaxis), Ljungström, 1975.

At this stage a prospective study for a new two-year period was started. Infusion of 100 ml of dextran 70 was started during operation in all patients filling one of the following criteria: 1. All patients over 50 years of age undergoing abdominal, orthopedic or urological surgery. 2. All patients undergoing re-operation regardless of age. 3. All patients undergoing major surgery with a history of previous thromboembolic disease regardless of age.

During this last two-year period only 3 patients died of fatal postoperative PE. The difference between 15 fatal PE in the non-dextran and 3 in the dextran group was significant, $P < 0.05$. A comparable number of surgical operations were performed during each year of the eight-year period.

COMBINED ADMINISTRATION OF LOW DOSE HEPARIN AND ASPIRIN VERSUS LOW DOSE HEPARIN ALONE AS PROPHYLAXIS OF DEEP VEIN THROMBOSIS (D.V.T.) AFTER TOTAL HIP REPLACEMENT. A PRELIMINARY REPORT. A. Kher, H. Flicoteaux, N. Jean, M. Bléry, T. Judet, F. Honnart and J. Pasteyer. Hôpital Raymond Poincaré, Garches, FRANCE.

In a prospective randomized trial, the efficacy of a prophylaxis of D.V.T. by low dose heparin alone (t.i.d.-group I-18 patients) and by low dose heparin (t.i.d.) combined with aspirin (500 mg b.i.d.-group II- 15 patients) was investigated using both radioactive fibrinogen uptake test and venography. The treatment groups were comparable for all pretreatment characteristics. The incidence of isotopic D.V.T. between group I (22.2%) and group II (26.6%) was not statistically significant. There was also no significant difference in the frequency of popliteal vein thrombosis between the two groups. One non fatal pulmonary embolism occurred in group I. Correlation of phlebography with radioactive fibrinogen uptake test is 87.5%. The combination of low dose heparin and aspirin does not improve the results obtained with low dose heparin alone in the prevention of post operative D.V.T. and a tendency in increased bleeding and wound haematomas were observed with such a combination.

POSTOPERATIVE INCREASE OF HEPARIN IN PREVENTION OF DEEP VEIN THROMBOSIS (DVT) AFTER TOTAL HIP REPLACEMENT. T.H. Schöndorf and D. Hey. J.-L. University-Hospital, Giessen, W.-Germany.

Acetylsalicylic-lysine (ASL) and a modified low dose heparin prophylaxis were examined to prevent postoperative DVT. 71 patients over 40 years undergoing hip replacement were randomised according to odd or even year of birth. Group I: 1.8g ASL were injected i.v. after the operation and then 24 hourly for 9 days. Group II: 5 000 IE heparin were given s.c. 10 and 2 hours before operation and continued in 8 hour-intervals until the evening of the first postoperative day. Heparin was subsequently increased to 3 x 7 500 IE/24 hours. DVT was diagnosed by the 125-I-fibrinogen test; in all legs with a positive scan a venography was performed. Partial-thromboplastin time and platelet aggregation was regularly controlled. The total incidence of DVT under the heparin prophylaxis (4/38) was significantly less than under the ASL-treatment (19/33); the rate of popliteal-femoral DVT revealed a similar significant difference. DVT opposite to the operated hip and bilateral DVT developed only under the ASL-treatment. The post-operative haematocrit decrease and the amount of blood from the wound drainage of the two groups did not differ statistically. Major wound bleeding occurred under ASL in one and in two patients under heparin. ASL did not prevent DVT sufficiently, but DVT was effectively reduced by the postoperative increase of heparin in these high risk patients.