

D. Hey and T. H. Schöndorf (Dept. of Medicine, University of Giessen, BRD): **Prophylaxis of Thromboembolism by Depotheparin in Orthopedic Patients.** (468)

198 patients (mean 59 yrs.) with major hip joint operations were randomized in two groups. Two schedules of depotheparin were administered for thromboembolic prophylaxis: a low dose of heparin (LDH) 3×500 IE/10 kg. b.w. started the preoperative day, and a high dose of heparin (HHD) $3 \times 1\ 250$ IE/10 kg b.w. beginning the evening of the first postoperative day. 27 control patients received no anticoagulants unless thrombosis occurred.

Undue wound bleeding was observed in 10% in all three groups. The mean values of blood (ml) from the drains as well as the postoperative hemoglobin decrease did not show significant differences between the three groups. Wound healing was not retarded in any of the heparin groups, all patients had in the mean the same duration of hospitalization. Significant alterations of clotting factor XIII were not found.

The lowest incident of pulmonary embolism and of phlebothrombosis diagnosed by the Doppler ultrasound technic was in the HDH-group. Similar results reflected the I25-Iod-Fibrinogen test which was conducted additionally in 40 patients; deep vein thrombosis of the lower limbs was also significantly reduced in the HDH-group. The prophylaxis by LDH proved to be better than in the untreated controls but was not as effective as the HDH.

The immunological determinations of antithrombin III were of no diagnostic value.

M. T. McEnany, E. D. Mundth, R. M. Weintraub, R. W. DeSanctis, J. W. Harthorne, S. Gates, W. M. Daggett, M. J. Buckley, W. G. Austen and E. W. Salzman (Mass. General Hospital, Beth Israel Hospital and Harvard Medical School, Boston, Mass., U.S.A.): **A Controlled Clinical Trial of Antithrombotic Therapy in Patients Undergoing Aortocoronary Artery Bypass Grafting.** (469)

Over 25,000 coronary artery bypass graft (CABG) procedures, involving more than 50,000 saphenous vein grafts, are performed yearly in the United States. The recognized one-year graft failure rate of 20-30% would imply thrombosis of at least 5,000 vein grafts per year. To improve graft patency rates, we have investigated the benefits of aspirin (ASA), warfarin (Coumadin®), or placebo in a randomized prospective study involving 216 patients undergoing CABG operations. A total of 412 vein grafts were performed. Clinical and angiographic follow-up at 1 to 2 years after operation is not yet completed, but preliminary results show 71% of grafts patent in ASA-treated patients, 64% in warfarin-treated patients, and 52% in the placebo group. 89% of warfarin-treated patients have at least one graft patent compared with 73% of placebo- and 75% of ASA-treated patients. The incidence of late myocardial infarctions has been lower in warfarin-treated (1.4%) and ASA-treated (4%) patients than in the placebo group (8%). Relief from angina is also markedly improved in treated groups, with 44% of ASA-treated and 56% of warfarin-treated patients angina free, compared to 27% of patients in the placebo group. There have been only 4 cardiac-related deaths, (3 in the placebo group and 1 in the ASA group). Eight patients were dropped from the study because of drug-related problems. Four patients bled on warfarin therapy, one ASA patient bled, while two had ASA-allergic reactions and one developed gastritis. Follow-up is continuing.

Preliminary results suggest that antithrombotic therapy is feasible in CABG patients and appears to promote graft patency, relieve angina pectoris and increase longevity.

H. Ch. Hart, L. J. de Vries and J. W. Wisse Smit (De Lichtenberg Hospital, Amersfoort, Holland): **Prevention of Deep-Venous Thrombosis after acute Myocardial Infarction. Comparison of Effectiveness of ASA, Dipyridamole + ASA, and Phenprocoumon.** (470)

In a controlled prospective trial of anti-aggregating drugs versus phenprocoumon, the incidence of deep-venous thrombosis (D. V. T.) was measured in 150 patients admitted with acute myocardial infarction in a coronary care unit. Patients moribund on admission,