Time

14.30 **0378** PLATELET RELEASE REACTION IN VIVO IN PATIENTS WITH ISCHEMIC HEART DISEASE (IHD) AFTER EXERCISE AND ITS PREVENTION WITH DIPYRIDAMOLE

H. Yamazaki*, T. Motomiya and T. Sano, The Tokyo Metropolitan Institute of Medical Science, Honkomagome, Tokyo and Tokyo Metropolitan Aoyama Hospital, Jingumae, Tokyo, Japan

Although an interaction between platelets and arteriosclerotic vessel wall is thought to be important in thrombus formation, a little information was obtained in clinical subjects. We have reported that platelet aggregation increased in patients with IHD after exercise. To analyse the mechanism of this phenomenon, changes in platelet sensitivity to ADP aggregation, plasma von Willebrand factor and beta-thromboglobulin level were measured in 30 IHD and 30 healthy controls before and immediately after an isometric exercise (handgrip of 50 % voluntary contraction for 2 min). Platelet sensitivity and vWF were determined by original methods detecting microscopically the highest dilution of serially two-fold diluted ADP or test plasma mixed with ristocetin to give platelet aggregation. Beta-TG was measured by RIA Kit. An effect of anti-platelet drug was also observed in IHD. The patients with IHD were administered with placebo or dipyridamole (400 mg/day for 4 weeks) in a crossover single blind fashion. Under placebo, platelet sensitivity to aggregation, vWF and beta-TG increased immediately after the exercise with a statistical significance in IHD. In the healthy control and IHD under dipyridamole, these increases were not observed. The phenomenon may suggest that platelets circulating in sclerotic vessels tend to release and are enhanced in reactivity with smaller stimuli than those in healthy. Such changes might be prevented with dipyridamole.

14.45 **0379** WARFARIN VERSUS WARFARIN AND DIPYRIDAMOLE ON THE INCIDENCE OF ARTERIAL THROMBO-EMBOLISM IN PROSTHETIC HEART VALVE PATIENTS

S.M. Rajah*, N. Sreeharan, S. Rao and D.A. Watson, Cardiac Research Unit, Regional Cardio-Thoracic Centre, Leeds, U.K.

The effect of Warfarin (W) was compared with a combination of Warfarin and Dipyridamole (W+D) on the incidence of arterial thrombo-embolism in patients with prosthetic heart valves in a prospective randomised study. Sixty-four and 53 patients were allocated to W and W+D. The two groups were comparable as regards age, sex, arrhythmias and site and type of valves. The dose of W was determined by regular monitoring of prothrombin ratio (1.9 - 3) and that of D by monitoring serum D levels to between 2 and 4 μmol/l. The mean period of follow-up was 26.98 months (range 1 to 36) for W and 22.02 months (range 1 to 36) for W+D. Six patients in W and 1 in W+D developed arterial thrombo-embolic episodes giving an incidence of 0.0035 per patient month for W and 0.0009 per patient month for W+D. An actuarial analysis of the yearly incidence of thrombo-embolism confirmed the superiority of W+D over W. Of the 6 failures in W, 5 were in sinus rhythm and 1 in atrial fibrillation and all had cerebral embolic episodes. The failure in W+D was a patient in atrial fibrillation who died suddenly 6 weeks after surgery and the post-mortem showed clots on both mitral and aortic prostheses.

15.00 **0380** SMALL DOSES OF SUBCUTANEOUS HEPARIN, PLASMA FREE-FATTY-ACIDS, AND THE INCIDENCE OF VENTRICULAR ARRHYTHMIAS IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

H.Arnesen[X], Ø.Skjæggestad and B.Wik, Int.Dept.8,Ullevål Hosp.,Univ.Clinic,Oslo, Norway.

The frequency of deep vein thrombosis (DVT) diagnosed with the ^{125}I-fibrinogen technique in patients with acute myocardial infarction (AMI) has been found to be reduced from about 20% without anticoagulation to about 5% with warfarin or small doses of subcutaneous heparin.

A somewhat higher incidence of ventricular tachycardia in patients with AMI treated with small doses of subcutaneous heparin has been reported. A possible mechanism might be heparin-induced activation of lipoprotein lipase with consequent increase of plasma free-fatty-acids (FFA), which have been found to be arrhythmogenic in patients with AMI.

In the present prospective trial, 99 patients with AMI and a history of less than 12 hours were allocated at random to treatment with subcutaneous heparin 5 000 IU twice daily, or warfarin. In a randomized subsample of 21 patients fasting FFA analyses were performed before and 2 hours after the administration of anticoagulants on day 1 and 2.

No measurable increase in FFA concentrations was demonstrated in the heparin-treated patients, in spite of a significant influence on the thrombin clotting time.

The frequency of ventricular arrhythmias as detected by continous tape recordings was equal in the two treatment groups.

It is concluded that subcutaneous heparin 5 000 IU every 12 hours seems to be a safe measures of prophylaxis against venous thromboembolic complications in patients with AMI.