

Poster
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P6-098

0961 IN VIVO DETECTION OF PLATELET DEPOSITION IN CORONARY ARTERY BYPASS GRAFTS IN DOGS AND ITS PREVENTION WITH PLATELET-INHIBITORS

V. Fuster, J.H. Chesebro,* M.K. Dewanjee, M.P. Kaye, M. Josa, and J.M. Byrne, Departments of Cardiovascular Diseases, Nuclear Medicine, and Surgery, Mayo Clinic, Rochester, Minnesota, U.S.A.

At 8 and 32 hours after saphenous vein bypass graft surgery in 7 dogs, in vivo images of the graft were obtained with a gamma camera after I.V. injection, 2 hours postoperatively of autologous ^{111}In -labelled platelets. Platelet deposition in the grafts could be imaged from the scintiphotos. Under identical conditions, in 9 dogs treated with Dipyridamole (2.5 mgs/kg/day) plus Aspirin (15 mgs/kg/day) (D + ASA), the grafts had significantly less platelet deposition as estimated by imaging ($p < 0.01$). The in vitro radioactivity ratios (mean \pm S.E.) of isolated graft sections to nontarget tissues of control and treated animals are as follows:

	Sections	Graft/Blood	Graft/Lung
Control	Proximal	14.0 \pm 8.8	28.4 \pm 25.1
	Distal	18.5 \pm 13.6	31.5 \pm 25.7
Treated	Proximal	4.3 \pm 2.4	6.5 \pm 5.4
	Distal	4.5 \pm 4.0	7.1 \pm 6.2

This noninvasive technique may be a promising tool for a better understanding of the role played by platelets in the process of occlusion of saphenous vein bypass grafts in man and its prevention with platelet inhibitors.

P6-099 0962 ANTIPLATELET DRUGS, CONTROLLED BY PLATELET SURVIVAL

G. Bremer⁺, O. Richter and E. Jacobi, Department of Medicine C and Inst. of Med. Statistics, University of D-4000 Düsseldorf, Moorenstr.5, Germany

The mean platelet survival is an in-vivo parameter in the analysis of platelet function. Thromboembolic diseases are associated with shortened platelet survival, because platelets are consumed in the thrombus generation. Platelet survival therefore is an parameter for controlling the effectiveness of antiplatelet drugs. In order to investigate the effect of several antiplatelet drugs, platelet survival is measured in patients suffered from long-standing diabetes mellitus with secondary complications with and without the following antiplatelet drugs: 3 times of 500 mg per day SH 1117 (Sulfinylaceticacidemethylester), 3 times of R 149 per day (75 mg Dipyridamole + 330 mg Acetyl-Salicylic-Acid) and a third group treated with 3 times per day 150 mg Anturano + 150 mg Dipyridamole. The shortened platelet survival in Diabetes mellitus can be normalized by R 149, whilst SH 1117 increases the platelet survival only moderately. Under the treatment with Anturano combined with Dipyridamole platelet survival is prolonged, but not normalized.

P6-100 0963 RETROPERFUSION OF THE ISCHEMIC MYOCARDIUM WITH METHYSERGIDE AND DIPYRIDAMOLE

R. K. KORDENAT, COX HEART INSTITUTE, WRIGHT STATE UNIVERSITY, SCHOOL OF MEDICINE, DAYTON, OHIO, U.S.A.

In four groups of 6 dogs each, an occluding thrombus was produced in the L A D coronary artery by placing a thrombogenic wire into the vessel, using a catheter technique (under x-ray control). One-half hour after occlusion was confirmed (angiographically) in Group I, methysergide (100 micrograms/kg, in 20 ml normal saline) was infused, retrograde, as a single bolus, into the ischemic myocardium, via the great cardiac vein, using a Swann-Gantz balloon catheter. In Group II, dipyridamole (2 mg/kg/ in 20 ml normal saline) was used and in Group III both drugs were combined. Group IV mean heart rate (HR), stroke volume (SV), cardiac output (CO) decreased from baseline ($p < 0.01$, $p < 0.01$ and $p < 0.001$) at the third post-occlusion hour and total peripheral resistance (TPR increased ($p < 0.001$). Few and less significant changes and some improvement in these and other variables occurred in I and II over the observed period. There were no significant changes in any variable in III. CO, TPR and SV of Groups III and IV were significantly different ($p < 0.05$ to $p < 0.01$), when their mean values were compared at the first and third post-occlusion hours. It appeared that both drugs offer a protective hemodynamic effect during acute myocardial infarction and there may be a positive synergistic action between them.