

## Atherosclerosis: Clinical and Experimental

Level 6 - Red Side (Princes Buffet)

Free Poster Session 11.30 - 12.45

Poster  
Board  
P6-111

0964 MODIFICATIONS OF THE FREEZE-CLEAVED CIRCULATING PLATELETS MEMBRANE IN HYPERCHOLESTEROLEMIC RABBITS, PREVENTED BY AD<sub>6</sub>.

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Circulating platelets present on their membrane some protuberances, placed among the plasma-membrane particles, when examined with F.E. technique. Statistic tests have shown a significant increase in the average number of such protuberances in the platelets of hypercholesterolemic (15 and 45 days) rabbits.

After i.v. administration of AD<sub>6</sub> (8-mono-chloro carbochromen, a substance with a supposed anti-aggregating action) the number of the protuberances of circulating platelets in the hypercholesterolemic rabbits approaches to the average values of the normocholesterolemic ones.

P6-112 0965 IN VITRO AND IN VIVO INHIBITORY EFFECTS OF ALCOHOL ON PLATELET FUNCTIONS OF RATS FED DIETARY SATURATED FATS.

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In the in vitro experiment, alcohol diluted in complete tyrode was added, at 37°C, 2min before aggregation tests, to platelet-rich plasma (final dilution in plasma: 0.00016 and 0.00032%) from male, Sprague-Dawley rats. These animals were fed either laboratory chow or a high fat (40%) purified diet rich in either polyunsaturated fatty acids (22% corn oil) or in long chain saturated fatty acids (38% with 2% corn oil). Aggregation to thrombin but not to ADP was significantly reduced (50%) in all 3 groups of rats with 0.00032% alcohol, even in hyperaggregable animals fed saturated fats. Addition of 0.00016% alcohol slightly reduced platelet response to thrombin. The in vivo experiment consisted of feeding 48 weanling male Sprague-Dawley rats with purified diets, as mentioned above, rich in either polyunsaturated fatty acids or saturated fatty acids for at least 7 months. Moreover, half of these animals had 6% alcohol in their drinking water for at least 2 months. Addition of alcohol, in drinking water, significantly prolonged platelet-rich plasma clotting time of saturated fat (101vs 136 sec) and in polyunsaturated fat group of animals (130vs 145 sec). Platelet maximal response of aggregation to thrombin (7.2vs 4.0 cm) and to ADP (9.0vs 5.7 cm) were significantly reduced by alcohol. Alcohol, in drinking water, appears to markedly inhibit platelet functions in rat. This seems to result from a direct effect on blood platelets since it can be partly reproduced by adding alcohol to platelet-rich plasma in vitro.