EFFECTS OF ANTICOAGULANT THERAPY ON LEVELS OF PLASMA ANTITHROMBIN III. T.Matsuda, M.Ogawara, N.Hirabayashi, T.Seki, M.Yokouchi and M.Murakami. Tokyo Metropolitan Institute of Gerontology, Tokyo, Japan.

Levels of plasma antithrombin III (AT-III) are frequently decreased in acquired disorders which predispose to thrombosis. The purpose of this study is to elucidate the mechanism underlying the decreased concentration of AT-III in thrombophilic states. Levels of AT-III were determined before and after institution of anticoagulant therapy with warfarin in nine cases. These patients consisted of three cases with ischaemic heart diseases, three with mitral stenosis with atrial fibrillation, one with cardiac aneurysm, one with thoracic and abdominal aneurysm and one with transient ischaemic attack. In seven cases, AT-III increased significantly following the institution of anticoagulant therapy. In two cases, AT-III decreased again after cessation of the anticoagulant therapy. Except for two cases of aneurysm, in whom coagulation analysis revealed presence of chronic consumption coagulopathy, plasma fibrinogen content did not increase following the anticoagulant treatment. α_2 -macroglobulin was unaffected by anticoagulant therapy in all cases. Levels of AT-III were inversely correlated with thrombotest values in the case of cardiac aneurysm in whom warfarin was continued for 14 months. From these results, it is concluded that AT-III is consumed even in cases in whom intravascular coagulation is not apparent and that the consumption of AT-III is affected by levels of vitamin K dependent factors.

THE PLATELET-LEUKOCYTE AGGREGATES IN OCCLUSIVE ARTERIAL DISEASE AND THE EFFECT OF HYDROXYETHYLUTOSIDES. M.Bielawiec, B.Kiersnowska-Rozowska and H.Jukian. Medical School, Białystok, Poland.

The diagnostic value and the effect of the therapy on the number and kind of platelet-leukocyte aggregates in patients with arteriosclerosis obliterans of the lower limbs were investigated. The modified Silbergleit's method was used. 8 types of aggregates were found. The mean number of aggregates in 20 healthy subjects was 8.2, in 52 patients suffering from obliterative arteriosclerosis of the lower limbs this number was significantly higher, that is 63.9. In healthy subjects most of the aggregates were type 1 to 4 whereas in the patients types 3 and 5 were most frequently found. 30 patients were treated for 3 weeks with hydroxyethylutositides /HR/ - orally 600 mg three times daily or intravenously 1000 mg twice a day. A significant decrease of the number of platelet - leukocyte aggregates in the groups of patients receiving HR was found. The type of aggregates after HR was similar to that found in the control group. In 22 patients receiving nicotinic acid derivatives /orally 300 mg three times daily and intramuscularly 300 mg twice a day/ for 3 weeks no significant changes in the parameter investigated was observed. The method of differential counting of platelet-leukocyte aggregates may be of value in early diagnosis of occlusive arterial disease and in evaluation of their therapy.

SYSTEMIC STREPTOKINASE TREATMENT OF CHRONIC ARTERIAL OCCLUSIONS - CLINICAL RESULTS. M. Martin and H. Auel, Aggertalklinik, Clinic for Vascular Diseases, Engelskirchen, Germany.

435 arterial occlusions were treated with streptokinase over a period of 3 days. A continuous streptokinase regimen with a maintenance dose of 100 000 u SK/h was administered. The successful removal of femoral obstructions was possible in 8.9 %. A complete dissolution of the iliac thrombus masses had been achieved in 19 %. 41 aortic occlusions were treated. The treatment was capable of removing the aortic obstructions in 24 %. It became evident that there was a close relationship between the average occlusion time and the respective clearance rate. For example, in patients undergoing lysis treatment during the very first two weeks after femoral occlusion, clearance was established in 75 % and best lytic results were achieved if the history of iliac occlusion was well below 3 months duration. The relationship of vessel clearance rate and walking distance showed, that on the average there was no lengthening in walking distance where treatment had failed (no vessel clearance obtained). On the other hand, a significant average rise in walking distance from initially 325 up to 800 meters ($p < 0.05$) was seen when vessels clearance had been recorded.