RELATIONS OF SERUM α_1-ANTITRYPSIN AND α_1-ANTICHYMOTRYPSIN TO RESTORATION OF MOVEMENT ABILITY IN CEREBROVASCULAR PATIENTS. K. Satoh, S. Takamatsu, K. Araya, Y. Yamada and S. Mizuno. Dept. Pathologic Physiology, Inst. Cerebrovascular Dis., Hirosaki Univ. Sch. Med., Hirosaki, Japan. H. Metoki. The Reimeikyo Rehabil. Hosp., Ikarigaseki, Japan.

Because fibrinolysis and blood clotting system is closely related to arteriosclerotic disorders, determination of serum α_1-antitrypsin (α_1-AT), α_1-antichymotrypsin (α_1-ACT) must be reasonable to detect the pathophysiologic status in patients with sequelae of cerebrovascular accidents. α_1-AT and α_1-ACT were determined by means of single radial immunodiffusion method. The level of α_1-ACT was demonstrated by area of precipitating ring formed on the agar plate. The mean values and standard deviations of α_1-AT was 272±58.1 mg/dl in 86 patients admitted in rehabilitation hospital, 312±34.9 mg/dl in 32 patients residing in the geriatric nursing home and 229±48.0 mg/dl in 135 healthy adults, being significantly higher in patients than healthy, and in nursing patients than in hospitalized patients. α_1-AT level was significantly higher in the patients aged over 40 than in those under 39, higher in the patients poor marks in the test of activities of daily livings (ADL-T) than in those with good marks, higher in those with impaired renal functions than in those with normal functions. α_1-ACT level was 52±10.0 mm^2 in 86 hospitalized patient, 70±15.1 mm^2 in 32 nursing patients and 48±6.3 mg/dl in 135 healthy adults, being significantly higher in patients than in healthy, and in nursing patients than in hospitalized patients. These results suggest that the fibrinolytic factor and proteinase inhibitor are closely associated with restoration of patient's movement ability. It is concluded that the study of this system contributes not only to the etiologic research but also to the progress of the rehabilitation medicine in the cerebrovascular diseases.

CONTACT ACTIVITY IN CEREBROVASCULAR DISORDERS. S. Takamatsu, K. Satoh, S. Sakuta, M. Takamatsu and S. Mizuno. Dept. Pathologic Physiology, Inst. Cerebrovascular Dis., Hirosaki Univ. Sch. Med., Hirosaki, Japan. H. Takekawa. The Reimeikyo Rehabil. Hosp. Ikarigaseki, Japan.

An Association of contact factor with arteriosclerotic disorders relating to coagulation, fibrinolysis and kinin relase was investigated by assessment in plasma of cerebrovascular patients. Contact activity was determined in plasma of 89 cerebrovascular patients and of 42 healthy controls following Waaler's method. Patients' activity was significantly higher than that of controls. The activity in patients with normal ECG findings was significantly higher compared with abnormal ECG cases. In patients with normal ECG findings, the activity of hypertensives was higher than that of normotensives, in patients elapsed over 4 months after their admisson it was higher than that in one month, in patients with good marks in the test of activities of daily livings (ADL-T) it was higher than that with poor marks. In normotensive patients with abnormal ECG findings, the activity was inversely proportional to serum cholesterol and ß-lipoprotein levels. The high activity in patients with normal ECG findings and few arteriosclerotic changes in contrast to patients with abnormal findings, and the inverse correlations between the activity and two lipids are unreasonable considering only the participation of the coagulation system triggered by contact factor. Therefore, the high activity must be regared as the result of participation of the fibrinolytic system activated by this factor. Although the high activity in patients with normal ECG findings and hypertension may be regarded as the protective effect of the fibrinolytic system to developement of arteriosclerosis induced by hypertension, and may be appreciated as the direct effect of kinin release by this factor in hypertension.

TESTING OF THE AGGREGATING ACTIVITY FROM VARIOUS BATCHES OF A PLATELET SPECIFIC COLLAGEN PREPARATION. F. Schulte. Hormon-Chemie München, Munich, Germany.

Producing of a collagen preparation for determining platelet functions requires the testing of the activity of each single batch to make possible a standardization. For this purpose methods using PRP (platelet rich plasma) to measure the platelet aggregation are not very appropriate. Since four years a collagen centrifugation test proves to be suitable for determining the activity of various batches of Collagenreagent "Horm". In this test the platelets of citrated whole blood are mixed with graduated doses of collagen directly by the withdrawal of blood. The turbidimetrical evaluation of the PRP obtained from the collagen treated whole blood samples shows 15 % (SD $\pm$ 3.5 %) of the O.D. (optical density) of the PFP (platelet free plasma) after a dose of 1 mcg and 80 % (SD $\pm$ 2 %) after a dose of 2 mcg collagen per ml whole blood. The aggregation of platelets in citrated whole blood simultaneously with graduated doses of collagen allows to standardize different batches of platelet specific collagen preparations.