

HEMORHEOLOGICAL STUDY IN A GROUP OF PATIENTS WITH CLINICALLY SILENT MULTIFOCAL VASCULAR CEREBRAL LESIONS

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Clinically silent vascular cerebral lesions /CSVCL/ have been a problem of great importance in neurology. It involves patients with risk factors for stroke such as hypertension, diabetes mellitus, cardiac diseases with arrhythmia but our knowledge about the pathomechanism of these changes has not been enough clear. We analysed hemorheological profile in a group of 35 patients with CSVCL diagnosed by magnetic resonance imaging or computed tomography in relation to the control group /10 subjects without such changes/. The following hemorheological parameters were estimated: relative blood viscosity at various shear rates, plasma viscosity, haematocrit and parameters of Quemada's rheological model /RCD as red cell deformability and RCA as red cells aggregation/. We also estimated biochemical factors: fibrinogen, IgM, IgG, IgA, CRP, cholesterol and albumin/globulin ratio [A/G]. We found a significant increase of red cell elasticity / $p < 0,04$ / in a group of patients as well as a significant decrease of IgM level / $p < 0,018$ /, cholesterol / $p < 0,04$ / and A/G / $p < 0,036$ /. We detected also the following significant correlations: between A/G and RCA /negative in patients, $p < 0,05$ /, cholesterol and RCA /positive in controls, $p < 0,007$ /, IgM and fibrinogen /negative in both groups, $p < 0,04$ and $p < 0,01$ respectively/, IgM/fibrinogen ratio and RCA /negative in patients, $p < 0,02$ /, cholesterol and fibrinogen /positive in patients, $p < 0,035$ /. In conclusion we may suggest that a better red cell elasticity in patients results from a self-regulatory compensation. IgM molecules seem to play an opposite role to fibrinogen molecules in red cells aggregation phenomenon.