LASER DOPPLER FLOWMETRY DURING ORTHOSTATIC AND THERMAL TESTS

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Abstract. The results of the use of laser Doppler flowmetry to determine the effect of orthostatic and thermal samples on perfusion of peripheral blood vessels are presented. The subjects measured the blood microcirculation index on the phalanx of the finger using a portable LDF device "LAZMA PF" (Russia). The measurements were carried out first in a room with an air temperature of 20 ° C, and then in a warm room at an air temperature of 30 ° C. In the course of this study, it was revealed that all subjects, regardless of the air temperature in the experimental room, had the same correlations at different body positions. It is shown that an increase in ambient temperature leads to an increase in the difference in microcirculation of peripheral vessels during an orthostatic test. Conducting the study in a room with an air temperature exceeding the normal room temperature made it possible to exclude a high variation in the data obtained during the orthostatic test and to obtain a more unambiguous reaction from the subjects.

Keywords: microcirculation, orthostatic test, laser Doppler flowmetry, peripheral blood circulation