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**HOLOGRAPHIC MODELING AND LANDSCAPE IMAGINATIVE
KINESIOTHERAPY IN CORONARY ARTERY DISEASE,
ARTERIAL HYPERTENSION, ANXIETY-DEPRESSIVE DISORDERS
REHABILITATION**

**ГОЛОГРАФІЧНЕ МОДЕЛЮВАННЯ ТА ЛАНДШАФТНА
ОБРАЗНА КІНЕЗІОТЕРАПІЯ В РЕАБІЛІТАЦІЇ
ПРИ ШЕМІЧНІЙ ХВОРОБІ СЕРЦЯ, АРТЕРІАЛЬНІЙ
ГІПЕРТЕНЗІЇ, ТРИВОЖНО-ДЕПРЕСИВНИХ РОЗЛАДАХ**

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Patients with coronary artery disease, arterial hypertension and anxiety-depressive disorders are characterized by high psychoemotional exertion, which significantly complicates their rehabilitation and requires additional correction, in particular pharmacological [1, 2, 3, 4]. For basic stabilization and effective rehabilitation of these patients and minimization of therapeutic

schemes side effects psychological and physical rehabilitation methods are necessary.

Psychological rehabilitation consists in the personal restructuring of the patient thanks to image-associative correction – graphic and kinesthetic reflection of unconscious psychotraumatic images with their replacement by adequate positive ones with the aim of achieving psychological stability [5]. A new psychosomatic method has been developed – holographic modeling: spatial unfolding of the internal state hologram created from its integrative image and its subsequent reflection in external objects with positive feedback [6].

A new method of physical rehabilitation has also been developed – landscape imaginative kinesiotherapy: plastic reflection of integrative images of one's own psychoemotional states with fixation of positive ones in movements in priority natural conditions [5].

30 patients (men aged 41.8 ± 1.3 years) with stable exertional angina pectoris II-III FC, stage II hypertension and somatoform disorders receiving standard treatment (β -blockers, calcium channel blockers, nitropreparations, tranquilizers), holographic modeling and landscape image kinesiotherapy were performed for 14 days. Cardiohemodynamics, ischemic activity and psychoemotional exertion, as well as the functional activity of erythrocytes and hemoglobin (Hb): hydroxy-, deoxy-, methemoglobin (MetHb), fractions of Hb – HbAo, HbA1, HbF were studied.

24-hour monitoring of ECG and arterial blood pressure, coronary ventriculography, bicycle test, echocardiography, disk electrophoresis in polyacrylamide gel, specially developed "Test Selfidentification System" and "Self-assessment of the Level of Psychoemotional Exertion" [7] were used for verification.

After the rehabilitation course in patients was noted an improvement in cardio-hemodynamics: the minute volume of blood circulation, heart and stroke indices increased ($P < 0.05$). Systolic blood pressure decreased from 171 ± 1 to 129 ± 1 mm Hg. ($P < .05$), diastolic blood pressure – from 104 ± 1 to 81 ± 1 mm Hg. ($P < .05$). The frequency and duration of ischemic episodes decreased in 84% of patients. The fractional and ligand composition of Hb also improved: the content of MetHb and HbA1 significantly decreased, the level of HbA0 increased ($P < .05$). The number of erythrocytes with high resistance has increased.

Psychoemotional exertion indices at the beginning of rehabilitation were: anxiety – 8.69, aggressiveness – 4.57, fear of death – 8.11, feeling of loneliness – 8.44, suicidality – 4.29. After rehabilitation: anxiety – 3.44, aggressiveness – 2.28, fear of death – 3.41, feeling of loneliness – 4.19; suicidality – 2.11. Before the start of rehabilitation, 88% of patients assessed their condition as bad, 12% – very bad. After rehabilitation, 33%

of patients noted a satisfactory condition, 61% – good and 6% – excellent. In 67% of patients the doses of β -adrenergic blockers and calcium channel blockers were significantly reduced while maintaining stable cardiohemodynamic parameters. Tranquilizers were discontinued in 57% of patients.

Methods of physical and psychological rehabilitation – holographic modeling and landscape image kinesiotherapy – improve the psychoemotional state, cardiohemo-dynamics, hemoglobin and erythrocytes functional activity in patients with stable exertional angina pectoris II–III FC, stage II hypertension and anxiety-depressive disorders. Provide their effective rehabilitation while reducing the intensity of pharmacological correction.

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