Results.– A statistically significant increase of the covered 6MWD by 506.34 m in the HIATT group has been observed after 12 weeks of training and was bigger than the result achieved from MICT CR group 480.16 m, *P* < 0.001.

Conclusion.– 6MWT is a powerful prognostic predictor of the effectiveness of CR interventions and one-year survival of patients with chronic heart failure (CHF).

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P292-e

**Program for tolerance increase to external weather factors at patients with meteosensitivity and arterial hypertension**

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**Keywords:** Arterial hypertension; Water-soluble antioxidant; Low-frequency magnetic therapy; Physical activities; Meteosensitivity

**Background.–** Adverse influence is rendered by environment factors, such as blood coagulation, cardio haemodynamics, the oxygen balance of an organism at the persons inclined to raise meteosensitivity and to promote occurrence of disorders.

**Methods.–** We surveyed 250 men at the age 20–45 years. Complex: bioenergymagnetic resonant therapy, baths with water-soluble antioxidant Mitofen, TM protocols, peak VO2 (29.8 vs 31.1, *P* = 0.016; McGill, *P* = 0.012). PainMatcher, *P* = 0.011).

**Discussion.–** Our results strongly suggest that during laser biosimulation vascular smooth muscle cells reactivity is reduced, moreover this effect is present only in arteries with normal endothelium.

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P293-e

**The influence of low power laser stimulation on vascular reactivity**

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**Keywords:** Laser biosimulation; Vascular reactivity

**Background.–** The mechanism of action of laser biosimulation on tissues is unclear. Authors of publications present the positive clinical impact of low and medium power laser radiation on vascular reactivity.

**Objective.–** Main aim of this study was to analyse the role of vascular endothelium in laser-induced constricted by endothelin-1.

**Methods.–** Experiments were performed on isolated and perfused rat tail arteries before and after exposure to low power laser stimulation (10, 30 and 110 mW).

**Results.–** Laser radiation inhibits vascular smooth muscle contraction induced by endothelin-1 proportionally to the laser power. Concentration-response curves were shifted to the right with significant reduction in maximal response. Inhibitory effect was present only for arteries with normal vascular endothelium. Moreover, in the presence of L-NAME (inhbitor of nitric oxide synthesis) and ODQ (inhbitor of soluble guanyl cyclase) inhibitory effect was not observed.

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Discussion.– Results of the experiments conclide with the results obtained during exercise stress tests using an aquatic treadmill (ATM) and a land treadmill (TM) in patients with coronary artery disease (CAD).

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P294-e

**Cardiorespiratory responses during aquatic and land treadmill in patients with coronary artery disease**

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**Keywords:** Coronary artery disease; Cardiovascular response; Exercise tolerance

**Background.–** Main aim of this study was to analyse the role of vascular endothelium in laser-induced constricted by endothelin-1.

**Methods.–** Experiments were performed on isolated and perfused rat tail arteries before and after exposure to low power laser stimulation (10, 30 and 110 mW).

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Discussion.– Our results strongly suggest that during laser biosimulation vascular smooth muscle cells reactivity is reduced, moreover this effect is present only in arteries with normal endothelium.

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P295-e

**Effects of kinesiotaping on venous pain in postmenopausal women with chronic venous insufficiency**

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**Background.–** Kinesiotaping (KT) is a bandaging used to increase vascular flow and diminish venous pain. This last was the aim of this study.

**Methods.–** A blinded randomized trial was performed. A total of 183 postmenopausal women with mild chronic venous insufficiency (CVI) (C1-C3 CEAP) were referred to the laboratory of the University of Granada (Spain) and allocated in three groups: Standardized-KT (Standard KT application to gastrocnemius muscle contraction and ankle dorsiflexion), mixed-KT (standard application & peripheral compression) and placebo (sham KT application). All taping were applied 3 times/week during one month. Pain was measured by visual analogue scale, McGill pain questionnary and PainMatcher.

**Results.–** Student t-test showed pre-post-treatment statistical differences in standardized-KT (VAS, *P* = 0.001; McGill, *P* = 0.011; PainMatcher, *P* = 0.001), mixed-KT (VAS, *P* = 0.001; McGill, *P* = 0.001; PainMatcher, *P* = 0.001) and placebo (VAS, *P* = 0.016; McGill, *P* = 0.022; PainMatcher, *P* = 0.001). ANCOVA analyze showed significant post-treatment differences between groups (VAS, *P* = 0.001; McGill, *P* = 0.002; PainMatcher, *P* = 0.012).