

Results: Our study showed contradictory results for the c.677T and c.1298C in gene frequencies and genetic association between the two studied populations. The 677T and the 1298C in Newfoundland population were both presented as rare alleles. Compared to the controls, the 677T showed a significantly reduced gene frequency in patients (OR:0.872, $P=0.039738$) which indicates a protecting effect. The 1298C had significantly increased gene frequency in patients (OR:1.217, $P=0.00298$) which supports a risk factor. However, the c.677T in Chinese Han population became a major allele (59.5%). It showed a significantly higher gene frequency in patients compared with the controls (OR:1.244603, $P=0.00014$) that supports a risk effect. The c.1298C as a rare allele, presented significantly reduced gene frequency in patients in compared with the controls (OR:0.804, $P=0.020$) which supports a protecting effect.

Conclusions: The complete contradictory results obtained from the two different populations suggest that these two variants may not play any biological role in associated diseases but may just be a bio-marker closely located to the disease associated gene.

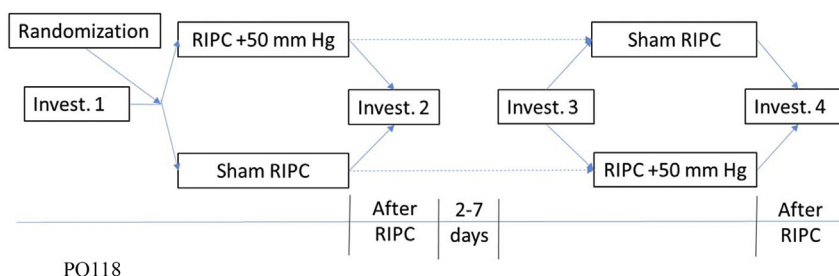
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PO118.

THE IMPACT OF REMOTE ISCHEMIC PRECONDITIONING ON ARTERIAL STIFFNESS AND HEART RATE VARIABILITY IN PATIENTS WITH ANGINA PECTORIS

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Aim: Remote ischemic preconditioning (RIPC) is the set of ischemia episodes that protects against subsequent periods of prolonged ischemia through the cascade of adaptive responses; however, the mechanisms of RIPC are not entirely clear. Aim was to study the impact of RIPC in patients with stable angina pectoris and compare it with healthy individuals with respect to arterial stiffness and heart rate variability.



PO117.

THE PULMONARY EFFECTS OF EXPIRATORY MUSCLE TRAINING IN PATIENTS WITH HEART FAILURE OF ISCHEMIC ETIOLOGY

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Aim: To objectify the effect of at-home-performed expiratory muscle training (EMT) with a Threshold PEP® trainer on functional lung capacity, mouth occlusion pressures, chest expansion, dyspnea and fatigue in patients with systolic heart failure.

Methods: Prospective consecutive evaluation of 23 patients with systolic heart failure (NYHA II-III, ejection fraction < 45 %). Patients were divided as follows: 13 patients were included in the intervention group, performing EMT with a 5–20 % of maximum expiration occlusion pressure. 10 patients were included in the control group, without intervention. In all patients spirometric and bodyplethysmographic parameters, chest expansion and level of dyspnea were evaluated.

Results: A significant improvement of selected parameters was observed in the group with EMT compared to the control group ($p<0.05$). Expiratory muscle strength $PE_{max} = 7.59$ to 9.49 ; $PI_{max} = 4.80$ to 7.20 kPa; parameters FEV1 and PEF; chest expansion in xiphosternal line; in mesosternal line, $p = 0.001$; dyspnoe evaluation mMRC (2 to 1). In the control group respiratory muscle strength decreased ($PE_{max} = 7.95$ to 7.76), $PI_{max} = 7.05$ to 6.10 kPa; chest expansion decreased, $p < 0.5$; subjective perception of dyspnoe mMRC stagnated (2).

Conclusions: EMT significantly improves functional capacity, increases respiratory muscle strength characterized by mouth occlusion pressures, improves chest expansion; decreases subjective perception of stress dyspnoe and fatigue in patients with chronic heart failure.

Methods: In the randomized, sham-controlled, crossover blind design study, a group of 30 coronary heart disease (CHD) patients (63.9 ± 1.6 years) with stable angina pectoris NYHA II-III and a control group of 20 healthy individuals (58.2 ± 2.49) were both randomly allocated for remote RIPC or sham RIPC (Fig. 1). Arterial stiffness, pulse wave velocity (Spygmacor, Australia), and heart rate variability (HRV) were recorded before and after the procedure followed by the crossover examination.

Results: In the group of healthy individuals, RIPC showed virtually no impact on the cardiovascular parameters, while, in the CHD group, the systolic and central systolic blood pressure, central pulse pressure, and augmentation decreased, and total power of HRV improved.

Conclusions: Ischemic preconditioning reduces not only systolic blood pressure, but also reduces central systolic blood pressure and improves arterial compliance and heart rate modulation reserve, which may be associated with the antianginal effect of preconditioning.

PO119.

PROGRANULIN ATTENUATES IN VIVO ACUTE MYOCARDIAL ISCHEMIA/ REPERFUSION INJURY IN A RAT MODEL OF HYPERCHOLESTEROLEMIA

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Aim: Hypercholesterolemia is associated with obesity and is a known risk factor for the development of coronary artery disease. Adipokines secreted by the adipose tissue influence cardiovascular function. The adipokine, progranulin attenuates acute myocardial ischemia/reperfusion injury in rats. However, whether progranulin protects against hypercholesterolemia-associated myocardial ischemia/reperfusion injury is unknown. The purpose of this study was to examine the role of progranulin in hypercholesterolemic rats subjected to in vivo acute myocardial ischemia/reperfusion injury.