Khoshbaten A

The aims of the present study were to determine whether short term high intensity interval training (HIIT) could protect the heart against ischemia reperfusion (IR) injury; and if so, to evaluate how long the exercise-associated protection can be lasted. Sixty-three rats were randomly assigned into sedentary (n = 15), sham (n = 7), and exercise groups (n = 41). Rats in the exercise groups performed 5 consecutive days of HIIT on treadmill: 5 min warm up with 50 % VO2max, 6×2 min with 95-105 % VO2max (about 40 to 45 m/min), 5×2 min recovery with 65-75 % VO2max (about 28 to 32 m/min), and 3 min cool down with 50 % VO2max, all at 0 % grade. Animals exposed to an in vivo cardiac IR surgery, performed at days 1, 7, and 14 following the final exercise session. Ischemia-induced arrhythmias, myocardial infarct size (IS), plasma lactate dehydrogenase (LDH) and creatine kinase (CK) activities were measured in all animals. Compared to sedentary rats, exercised animals sustained less IR injury as evidenced by a lower size of infarction and lower levels of LDH and CK at day one and day 7 post exercise. In comparison of sedentary group, IS significantly decreased in EX-IR1 and EX-IR7 groups (50 and 35 %, respectively), but not in EX-IR14 group (19 %). The exercise-induced cardioprotection disappeared 14 days following exercise cessation. There were no significant changes in ischemia-induced arrhythmia between exercised and sedentary rats. The results clearly demonstrate that HIIT protects the heart against myocardial IR injury. This protective effect can be sustained for at least one week following the cessation of the training.

KEYWORDS: cardioprotection; exercise training; ischemia; reperfusion

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From traditional medicine manuscript to the prevention of relapse in opioid-dependent patients

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The school of Persian Medicine (PM) has a comprehensive approach to physical and psychological aspects and considers health as a priority. Along with the spread of drug addiction in Iran during the Safavid era, Iranian scientists have also come up with scientific and precise methods to prevent and cure this problem. For example, the first scientific book on the treatment of opiate addiction has been written by Iranian scholars. Currently, extensive research on PM in the field of addiction and psychological and spiritual aspects of human health with scientific methodology is ongoing. The efficacy of different herbal drugs has been proven by animal and clinical studies. Hab-o Shefa is an herbal product from PM manuscript idea for treatment of opiate addiction. Animal studies of this product did not show a significant difference in the total score between the methadone group and Hab-o Shefa group. Clinical studies of Hab-o Shefa was showed that this product as a maintenance treatment in people with opioid abuse reduced craving, anxiety, and depression over time. Score of craving, anxiety, and depression showed a decreasing trend after drug discontinuation and 6 month follow up.

Key Words: Addiction, Hab-o Shefa, Persian Medicine

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Report on activity and researches were performed in the department of Traditional Medicine, Shahed University based on breastfeeding as personalized medicine in Iranian Traditional Medicine