

ORIGINAL STUDIES

Nutrition, coffee, alcohol consumption in students' life style

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Abstract

Background. The increase of coffee and alcohol consumption, smoking plus obesity associated with stress among young people represent risk factors for their health.

Aims. To estimate the incidence and motivation of coffee and alcohol consumption, smoking habits and physical activity among the students.

Methods. We used an anonymous questionnaire, with 30 questions related to: daily nutrition habits, coffee use, and smoking, the motivation of alcohol consumption, the frequency, occasions and life style. 132 students (66 boys, 66 girls), aged 18-28 years, from the Faculty of Medicine, Computers and Electrotechnics Timișoara were investigated.

Results. The students do not have a regular food timetable (87%), and 53% of them eat three times daily. The majority eat in a hurry and normally fast food. The incidence of coffee consumption was 58.34%, higher in girls (75%) than boys (46.66%). The incidence of smoking was 53.33% in boys and 33.33% in girls. The students are occasional drinkers. Youths drink alcohol to help their shyness, to escape from their own inhibitions and consider it a method of being accepted in a group. The main occasions of alcohol consumption were social events (67%) and going out with friends (61%). Only 10% practised a regular physical activity.

Conclusions. The incidence of risk behavior was increased in students. An educational programme aimed at changing behavior and attitude to coffee, tobacco smoking, alcohol use, physical activity, including nutritional counseling on a healthy diet, may be successful in the primary prevention of related diseases regarding these risk factors.

Keywords: teens, eating habits, alcohol use, motivation.

Vitamin A, E and C supplementations and the aerobic exercise capacity in rats (Note I)

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Abstract

Background. The relationship between exercise and vitamins and the influence of exercise on the content of vitamins in the human body, on the one hand, and the ergogenic effect of vitamin supplementations during exercise, on the other hand, determined us to explore the influence of antioxidant vitamin A, E and C supplementations on the aerobic exercise capacity in rats.

Aims. The influence of vitamin A, E and C supplementations on the aerobic exercise capacity in rats was investigated.

Methods. The investigation was carried out on groups of 10 male albino Wistar rats (weighing 170-190 g): group I – control group, group II - with vitamin A supplementation (150,000 IU/day); group III - with vitamin E supplementation (15 mg/day); group IV - with vitamin C supplementation (50 mg/day). All the groups were exercise trained daily using the swimming test for 28 days.

Results. The aerobic exercise capacity increased significantly in exercise trained animals supplemented with vitamin E and C, as compared with the first day. The increase of the aerobic exercise capacity was the highest after supplementation with vitamin A.

Conclusions. Supplementation with A, E and C vitamins has significant favorable effects on exercise. The aerobic exercise capacity increased significantly in animals trained to exercise (the swimming test) with vitamin supplementations, compared with first day values.

Keywords: exercise, vitamins: A, E and C.

Antioxidant complex administration and the serum and tissue oxidant/antioxidant balance in hypobaric hypoxia exposed exercise-trained rats

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Abstract

Background. Studies on exercise at altitude and the favorable effects of increasing exercise capacity when returning to lowlands, especially in endurance exercise, have become a very topical subject after the Olympic Games in Mexico City (1968) held at 2241 m. Intermittent exposure to hypobaric hypoxia associated with exercise can be done by several models: Hi-Hi (living high-training high), Hi-Lo (living high-training low), Lo-Hi (living low-training high), Hi-Hi-Lo (living high-exercise high-training low). In the present research we chose the Hi-Lo model (living at high altitude, training at low altitude), well known and used for competitive sports training.

Aims. We pursued the influence of an antioxidant complex administration on the serum and tissue oxidant/antioxidant balance under exercise conditions after exposure to hypoxia in rats.

Methods. The research was performed using the Hi-Lo model, in 5 groups of white male Wistar rats, under laboratory conditions corresponding to the altitude of 364 m, O₂=20.93%: group M – sedentary controls, kept under normoxia conditions, group I – exercise trained under normoxia conditions, group II – supplemented with an antioxidant complex and exercise trained under normoxia conditions, group III – exposed to hypobaric hypoxia for 28 days, followed by exercise under normoxia conditions, group IV – supplemented with an antioxidant complex, exposed to hypobaric hypoxia for 28 days, followed by exercise under normoxia conditions.

Results. Our results show significantly increased MDA and PC levels and significantly decreased DH and GSH levels in the serum, in all groups, compared with controls. In brain tissue, PC levels were significantly increased and GSH levels were significantly decreased in all groups, compared with controls. In the myocardium, MDA and GSH levels were significantly increased and DH levels were significantly decreased in all groups, compared with controls.

Conclusions. Chronic hypobaric hypoxia exposure followed by moderate-intensity exercise, performed under normobaric conditions, determines: significant decreases in MDA in the serum and brain, significant increases in PC in the myocardium, significant decreases in DH and significant increases in GSH in the brain, compared to the exercise trained group. AO complex supplementation, hypobaric hypoxia exposure followed by moderate-intensity exercise, performed under normobaric conditions, determine: increases in brain MDA and decreases in myocardial DH, compared to the hypobaric hypoxia-exposed exercise-trained group.

Keywords: antioxidants, hypobaric hypoxia, exercise, rats.

The effect of hemp seed oil on serum oxidant/antioxidant balance in rats trained to exercise with progressive intensity

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Abstract

Background. The antioxidant action of hemp oil and its favorable effects on increasing aerobic capacity and on the serum oxidant/antioxidant balance demonstrated in rats during linear intensity exercise led us to study the influence of hemp oil dietary supplementation on the serum oxidant/antioxidant balance in rats trained to progressive intensity exercise.

Objectives. We pursued the experimental progressive intensity training effect, with or without hemp seed oil, on the serum balance of oxidants/antioxidants in rats.

Methods. The research was conducted on three groups (n=10 animals/group) of male, adult Wistar rats. Group 0 was the control group (sedentary animals), group I consisted of rats trained to progressive intensity exercise, group II consisted of rats trained to progressive intensity exercise and supplemented with hemp oil. Exercise training lasted for 28 days.

Results. Hemp oil supplementation and exercise with progressive loading caused significant increases in oxidative stress indicators and significant increases in antioxidant defense.

Conclusions. Hemp oil is a complex nutritional agent with an antioxidant effect during progressive loading exercise by increasing antioxidant defense capacity.

Keywords: rats, exercise, serum oxidant/antioxidant balance, hemp oil.

The influence of chronic hypothermic and anakinetic stress on the redox balance in carnitine supplemented rats

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Abstract

Background. Hypothermia and immobilization are stressful agents used in order to induce experimental laboratory stress.

Aims. The study evaluated the effects of chronic hypothermic and restraint stress on the serum oxidant/antioxidant balance in rats with and without carnitine supplementation.

Material and methods. The study was performed in four groups of male adult Wistar rats (n=10 animals/group), during 15 days: group I - exposed to hypothermic stress (5°C), group II - exposed to anakinetic stress, group III - exposed to combined stress (hypothermic - 5°C - and anakinetic stress), group IV - supplemented with carnitine and exposed to combined stress. Blood samples were used to determine the level and activity of the oxidative stress (OS) indicators - malondialdehyde (MDA), carbonylated proteins (CP) and antioxidant (AO) system - hydrogen donor capacity (HD), thiol groups (SH), reduced glutathione (GSH).

Results. The statistical analysis performed in the 4 groups revealed that chronic combined stress induced significant increases in MDA, CP and decreases in HD and SH in the serum, compared to chronic hypothermic stress. Regarding chronic combined stress, there were significant increases in MDA and CP, and decreases in HD, SH and GSH compared to chronic anakinetic stress. Carnitine supplementation in chronic combined stress conditions (group IV) induced significant changes by diminishing the MDA levels and increasing SH and GSH compared to the combined stress group (III).

Conclusions. Our experimental results show that chronic combined stress (hypothermic and anakinetic stress) increases the oxidative stress (OS) indicators and decreases antioxidant (AO) defense indicators in the serum, compared to chronic hypothermic and anakinetic stress. Carnitine supplementation in chronic combined stress conditions has beneficial effects by diminishing OS indicators and by increasing AO defense, in the serum.

Keywords: chronic combined stress, hypothermic stress, anakinetic stress, carnitine, oxidant/antioxidant balance.

The effectiveness of Arnica Montana treatment, in sports post-trauma ankle sprains

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Abstract

Background. Arnica Montana (AM) is known for its beneficial effects in trauma with blood extravasations.

Aims. The objective of the study was to evaluate the AM influence on the sensation of pain and local edema from sports post-trauma ankle sprains, in sport amateur practitioners.

Methods. The chosen subjects (n=40) were selected based on the requirements of the study and randomly distributed in three groups, to which the following were administered: conventional therapy (C), with a nonsteroidal anti-inflammatory drug, Diclofenac 25 mg (A); homeopathic therapy with AM 200 CH (H); both homeopathic therapy with AM 200 CH and local phytotherapy with two creams containing AM (HP), Artrin and Rutilcelit. On days 1, 3, 6 and 12 of treatment the following were evaluated: pain sensation, on the Visual Analogue Scale (VAS) and the local edema size, by measuring the ankle sprain circumference. Statistical analysis was made on the basis of the Student t test.

Results. Local pain and edema decreased more efficiently in H and HP compared to C, significant differences being on days 6 and 12 of therapy. Under the influence of AM 200 CH, alone or associated with AM creams, both the pain sensation and the inflammatory edema size were reduced more effectively, compared to A. Intra-group comparisons evidenced significant decreases both for the sensation of pain and the edema size in H and HP groups, on days 6 and 12. Intergroup comparisons showed significant differences on days 6 and 12 of treatment, between C-H and C-HP groups.

Conclusions. The present study confirms the anti-inflammatory qualities of homeopathic and phytotherapeutic AM, the novelty being the use, in post-sport ankle sprain, of AM 200CH and its combination with two creams containing AM, Artrin and Rutilcelit. In this combination, the effects on reducing the pain sensation and edema size, although without significant H-HP differences, were more effective in the examined amateur sport practitioners.

Keywords: Arnica montana, Arnica montana homeopathic remedy, pain, swelling, VAS, ankle sprain.

The influence of sample technical indicators on the results in the 4x100 m relay men's event

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Abstract

Background. Knowing the contribution of technical indicators in specific training techniques can determine performance optimization in the 4x100 m relay event.

Aims. The study aims to emphasize the importance of increasing specific training technique efficiency in order to optimize performance, by analyzing technical indicators specific to some runners from club teams and national representatives.

Methods. A comparative analysis was performed on individual and collective performance of some runners from club and representative teams, both nationally and in large scale competitions. Data were obtained both from private sources – individual records – and public sources.

Results. The analysis of the data obtained highlights some minimum requirements to optimize individual and team performance by shifts: a) start technique, speed acceleration technique, running the bends, right arm coordination (handing over - taking over); b) acceleration capacity, flying start, speed endurance, ambidexterity (handing over), stability of nervous processes (not anticipating leaving at the control sign); c) acceleration capacity, flying start, speed endurance, running the bends, ambidexterity (handing over), stability of nervous processes (not anticipating leaving at the control sign); d) acceleration capacity, flying start, speed endurance, left hand coordination (taking over), stability of nervous processes (not anticipating leaving at the control sign), mental balance, good finish.

Conclusions. Highlighting the role of technical indicators, of specific technical training to optimize sport results, requires a reassessment of the importance of this component, which must find its rightful place in the training process.

Keywords: training, technical indicator, performance.

REVIEWS

Respiratory gymnastics, an opportunity for the exercise capacity optimization in people with essential hypertension (Note I)

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Abstract

Essential hypertension represents both a cardiovascular disease and a major risk factor for the coronary atherosclerosis emergence.

The engendered circulatory complications - stroke, myocardial infarction, renal failure - are becoming increasingly common when blood pressure values are higher.

Because of its high incidence and of the major health-related problems it can induce, essential hypertension requires a series of treatment means, among which we mention the inclusion of respiratory gymnastics, with a favorable impact on the cardio-respiratory function.

Respiratory gymnastics, through its operational means, leads to the activation not only of the segments of the body, but also of its organs, by contributing thus to health condition maintenance, due to a better functioning of all the human body systems.

The regular practice of a respiratory gymnastics program by hypertensive people may result in a reduced cardiac labor and in a much increased tolerance to exercise, under the conditions in which the exercise capacity optimization determines a status of independence and, implicitly, a better quality of their life.

Keywords: hypertension, respiratory gymnastics, exercise capacity.

Seven decades of basketball in Salonta city

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Soon it will celebrate seven decades since under the guidance of Professor Beleznay Andor, on the court arranged in the schoolyard of Arany János high school, the game of basketball was first presented to the students in Salonta. We have considered that, on the eve of this anniversary, a paper showing the highlights of the evolution of the sport in the city of Salonta is welcome.

The work, developed under an extensive documentation process – articles in the local and central press, documents issued by different sport structures, planning documents and coaches' records, etc. iconographic material – presents the beginnings of this sport in the city, the actions that led to broadening its practitioners, organizational measures and other steps in the beginning of basketball practice in the competitive system. A special place was given to the attempts to promote among divisional teams and to the period when teams in Salonta have evolved in the Republican divisional championship. It also presents the most important results, coaches, players and sportive managers who contributed to these results.

Through its content and the data made available to those who study it, the paper presents interest to all who wish to know the history of this sport in Salonta.

Keywords: basketball, sports history, Salonta.