

потужності, економності, внескові анаеробних і аеробних механізмів у забезпечення спеціальної працездатності.

При відсутності спеціального устаткування, як додатковий метод для реєстрації результатів тестування, можна використовувати кров, визначаючи в ній вміст лактату і кетоз'єднань, а також проби сечі, узяті після тестування для визначення в них кетоз'єднань.

Дослідження крові дає можливість за співвідношенням лактат/піруват оцінити внесок аеробних і анаеробних механізмів в енергозабезпечення роботи, а також дозволяє побічно оцінити критичну потужність і ефективність роботи спортсменів. Оскільки вміст кетоз'єднань у сечі тісно зв'язаний з показником $W \times 60''$, то цей показник можна використовувати для непрямого прогнозування гліколітичної потужності спортсменів в академічному веслуванні.

Висновки

- Максимальне нагромадження лактату в крові в результаті стандартного тестування веслярів-академістів знаходиться в тісному кореляційному взаємозв'язку зі співвідношенням лактат/піруват ($r = 0,802$) і в менш тісному негативному – із вмістом кетоз'єднань у крові після тестування ($r = -0,663$).
- Оскільки кетоз'єднання в крові представлені, в основному, пірвіноградною кислотою, співвідношення лактат/піруват можна використовувати для характеристики внеску аеробних і анаеробних механізмів в енергозабезпечення роботи.

Література

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PHYSICAL ACTIVITY IN GERIATRIC PREVENTION

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Introduction

Physical activity is a key and integrating element of a healthy life style. To achieve a relative health improvement a systematic and adequate activity optimal for every individual is necessary [1,4].

A decrease of physical activity is considered one of the aging symptoms and a reason for a loss of health. The decrease of physical activity in people of advanced age leads to a

fall of physical fitness and capacity to a lower level than their age indicates [5]. Physical activity is one of the essential means that may delay a process of old age decline or postpones the occurrence of their unfavourable consequences [3,6].

The safest and the most frequent form of recreation taken up spontaneously, individually as well as in the therapeutic groups by older people is gymnastics. Beginning exercising even after the age of 60 positively influences circulatory, respiratory systems and motor organs [2,3].

Physical activity as one of stimulating forms is a desirable factor not only for being in good condition, keep fit, self-reliance and independence in older age but occupying free time, what is important in geriatric prevention, as well.

The aim of the investigation was to understand the influence of preventive activity onto the health of advanced age women participating in organized physical exercises.

Material and Method

25 women aged 55-65 who have been participating for five years in systematic gymnastics for adults, for 60 min. twice a week took part in the investigations. The exercises are of a therapeutic rehabilitation type and at the beginning they are to ease the functioning of respiratory, circulatory systems and muscular tone. Then follow special exercises coordinating muscle-skeletal dysfunctions, acceleration of metabolism and growth of muscle power that were not obtained by general exercises.

General medical examinations preceded the women's participation in the exercises. Additionally they are under permanent control of an orthopedist. The women are systematically provided with information, which enables self-control of any symptoms in order to guarantee safety.

The last stage of investigations was carried out in 2004. A diagnostic survey based on questionnaires, an interview, the analysis of orthopedic examinations and a measurement of body composition by a bio-impedance method with a TBF 300P analyzer for body composition were used.

Results

In the women's self-appraisal 14 (56%) of them declared their health as good, 6 (24%) as very good and 5 (20%) as satisfactory.

The majority of the subjects (without women requiring an individual instruction) practice individually at home and spending their leisure actively (walks, hiking, gymnastics, outdoor gardening, tourism, strolls along the seaside). The obtained results reveal that as a result of physical exercises the subjects felt better, the immunity to infections raised, their vitality, fitness and concentration improved.

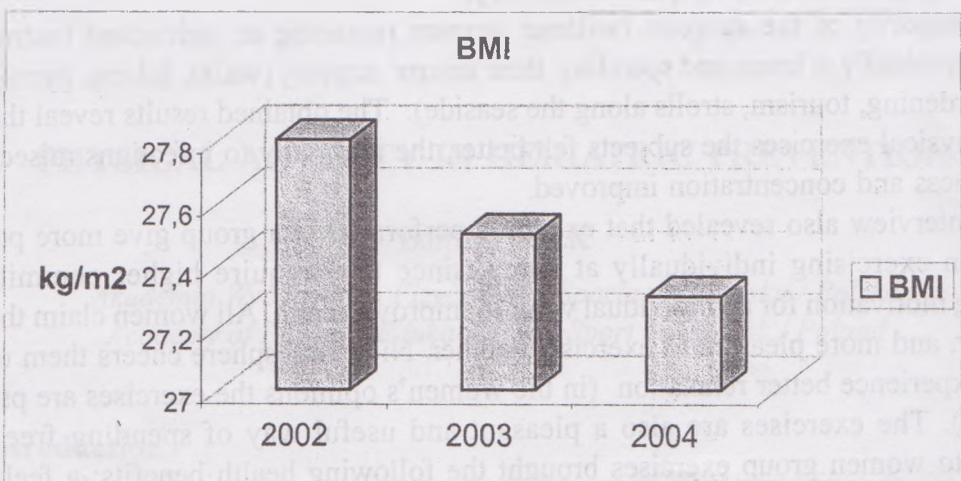
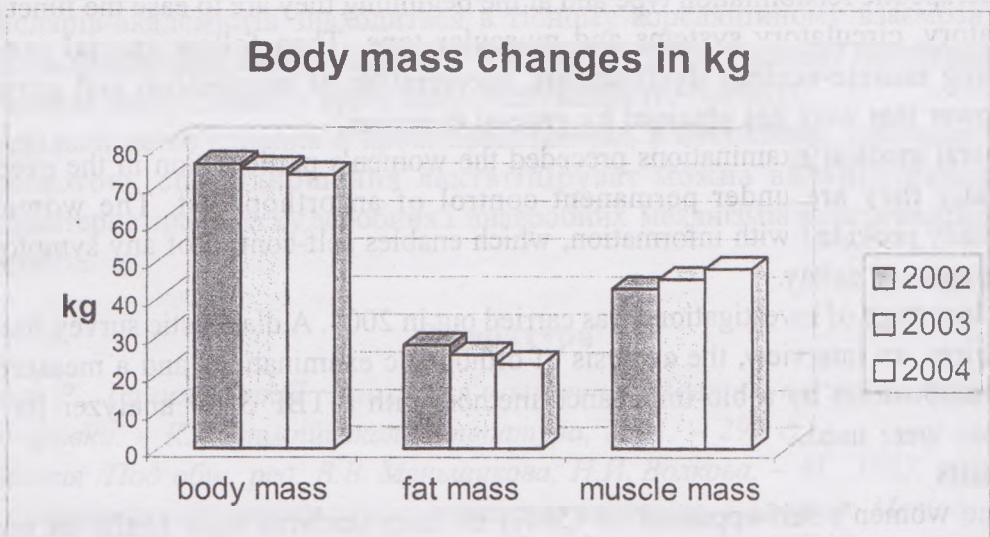
The interview also revealed that exercises performed in a group give more positive stimuli than exercising individually at home, since they require higher commitment, intensifying motivation for an individual work to improve health. All women claim that it is better, safer, and more pleasant to exercise together. Nice atmosphere cheers them up and allows to experience better relaxation (in the women's opinions the exercises are psycho-therapeutic). The exercises are also a pleasant and useful way of spending free time. According to women group exercises brought the following health benefits: a feeling of increased or maintained on a satisfying, adequate to the age level physical fitness and mental efficiency, improvement of motor coordination, balance and imagination of a movement.

Health oriented counseling (diet, rest, safety at home, general exercises) led women, in their opinion, to change former stereotypes, habits and health behaviours. The awareness of health decisions taken by the subjects considerably improved.

The analysis of empirical materials shows that the doctors providing medical attention observed the following: decrease or stabilization of arterial blood pressure, maintenance of fall of blood-glucose level, improvement of lipid metabolism and coronary circulation, drop or stabilization of body weight.

Other health benefits arose from documents and confirmed by orthopedists referred to the following: the curb of pathological symptoms by postponing or regression of low back pains, chest pains, pains in cervical spine, and pains in knee joints due to degenerative changes, improvement of a range of joint mobility, regression of numb and tingling sensations of limbs, regression or lowering night pains intensity, improvement of muscle efficiency, decrease of shortness of breath while exercising or going up the stairs. The women assessed their body fitness with reference to their age as high or satisfactory. They also claimed not having any problems with activities inseparable with their every day life.

The results of body composition measurements of women doing exercises in the years 2002/2004



Discussion

To obtain objective evidence of beneficial influence of exercises onto the organism a longer observation is required. In the investigation material the period of participation and scientific observation covered three of five years.

In references (1,4,6) it was often emphasized that appropriate and systematic physical activity brings expected health benefits such as improvement of general feeling and health particularly lessen rheumatic pains, headaches, decrease of arterial blood pressure. Other authors (1,3,5,6) believe that systematic recreational/health exercises belong to well-grounded therapeutic forms, which should be regularly used in geriatric prevention.

The author's own investigations revealed that regular improving (rehabilitation) exercises in a form of gymnastics adequate to age and capacity abilities of the women's organism brought expected health benefits such as improvement of general feeling and condition, thus delaying evolutionary processes. The above observations equal with the observations of the quoted above authors.

Conclusion

1. Women participating in the exercises present a pattern of a stable life when retired.
2. Forms of women's physical activities in leisure are the results of health oriented behaviours and control of a life style.
3. The obtained health benefits are a crucial factor for creation of health in advanced age women.

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Abstract. Physical activity as one of stimulating forms is not only a desirable factor helpful to be in good condition, keep fit, self-reliance and independence in older age but occupy free time what is important in geriatric prevention as well. The aim of the investigation was to understand the influence of preventive activity onto health of 27 women of advanced age participating in organized physical exercises. A diagnostic survey was based on questionnaires, an interview, the analysis of orthopedic examinations and a measurement of body composition by a bio-impedance method. Physical activity based on systematic, moderate, natural movement and a counseling within activities health oriented (diet, social activities, rest, leisure) has brought the expected health benefits in a range of health and life improvement of advanced age women. Women pensioners participating in rehabilitation exercises present a stable life. The obtained health benefits are an important factor to create a healthy life style of old age pensioners.

Key words: physical activity, health, women, and geriatrics.