Subject: “Athlete's Heart” - Echocardiographic assessment of cardiac structure and function in speed-power and endurance master athletes.

Introduction

Physical activity is a normal state. Inactivity accelerates secondary ageing (due to diseases of affluence and environmental factors) and decreases life expectancy. Sedentary lifestyle results in excessive fatness, reduction in muscle mass, increased risk of cardiovascular diseases, hypertension, diabetes and other ailments.

Competitive master athletes are like paleolithic or contemporary hunter-gatherer societies, because they still maintain a very high level of physical activity and fitness. Thus, they are adequate model of "successful ageing".

In principle, many years' sport training, particularly endurance exercise, positively affects cardiac structure and function in master athletes. It seems that so called "athletic heart" syndrome (heart enlargement) is a desired norm whereas inactive people represent pathologic effects of sedentary life. Recently, however, scientific studies showed that a long-term very intensive endurance training may bring about some deleterious functional and structural changes, e.g. increased risk of specific heart arrhythmias and impairments in circulatory system. Moreover, it is still not know how the many years' training affects the heart of speed-power/sprint master athletes.

The "profit and loss account" for health benefits and risks is undoubtedly strongly advantageous for master athletes, but there is still a need for regular health monitoring to avoid any undesired effects of heavy training.

Examination during EMACI 2015

An ultrasound scan will be performed using echocardiographic apparatuses (GE Health Care distributed by Medinco, Poland). The thickness of the heart walls, the size of atria and ventricles and the blood flow will be measured. The examination is completely non-invasive (at rest) and performed by professional physicians. After measurement, each participants receives a written report with basic recommendations. The procedure lasts about 30 min including two stages: (1) a questionnaire regarding general health status and sport career (5-10 min) and (2) ultrasound scan, undressed to the waist, supine position (20 min).

The examination is free of any charge!

We are waiting for you in the main Sport Hall of EMACI 2015, near the warm-up area.

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