

Physical activity of endurance: Play attention at the risk of cardiac arrhythmias



The excess creates the poison: it could also apply to the sport of endurance because only a moderate practice is beneficial for the health. Indeed, in adults, a physical activity of average intensity reduces the risk of occurrence of a heart rhythm disorder, in particular an atrial fibrillation (FA) probably by a beneficial effect on the factors which favor the appearance of this rhythm disorder, namely ischemic heart disease, high blood pressure and diabetes.

In contrast, in men of 65 and more years old, the physical activity of endurance tends to increase the risk of atrial arrhythmias although few studies went deeper into the relation dose-answer which exists between this type of exercise and the risk of rhythm disorders of atrial origin taken in general.

It is what made Myrstad and coll. to estimate in a male population, the risk of occurrence of atrial arrhythmias according to the years accumulated by regular physical activity of endurance.

The retrospective study was conducted on a total of 3545 men of more than 53 years old who had been included in 2 different cohorts: the one (n=366), concerned cross-country skiers who participated regularly in competitions on a long distance, the other one (n=1179), the stemming from the population of the participants in Oslo Health Study from 2000 till 2001 and in 2009.

The diagnosis of atrial arrhythmia concerned the data of the ECG. The level of physical activity of endurance was reported by means of a questionnaire.

Odds ratios adjusted by 10 years of training was 1,16 (reliable interval 95% [1,06–1,29]) for the occurrence of an atrial fibrillation and 1,42 (IC 95% [1,20 in 1,69]) for the occurrence of an atrial flutter.

The association between on one hand, the age and the level of the physical activity of endurance and on the other hand,

the occurrence of atrial arrhythmias remained significant at the cross-country skiers and at the subjects stemming from the general population.

These results are confirmed by a Danish study made at the runners. Peter Schnohr et al asserts that the maximal duration of a training in running should not exceed 7h30/week. Beyond, it is not only useless, but also it could be harmful.

So, the accumulation of numerous year of physical activity of endurance is associated with a significant increase not only of the risk of FA but also, like this study demonstrates it, of a risk of the flutter. Mechanisms leading to an increase of the risk of heart rhythm disorders in connection with the physical activity of endurance still remain to be clarified. They can be however awarded to an inflammatory state or to an imbalance of the autonomic nervous system.

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