positive effects on aerobic capacity. Compared to MCT, IT program tended to increase more the peak VO₂ and the peak workload (weighted mean difference +4±3.3 vs +2.7±4mL/kg/min, p=0.06 and +22.8±14.6 Watt, p=0.09 respectively). No adverse event was reported during training sessions.

Conclusion Interval Training was more effective for the improvement of peak VO₂ than MCT.

The author hereby declares no conflict of interest

0238

Short-term impact of an ambulatory cardiac rehabilitation program on arterial rigidity

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Background If the positive impact of cardiac rehabilitation on metabolic profile and exercise tolerance is well documented in the literature, very few studies evaluated the impact of these rehabilitation programs on arterial rigidity.

Purpose The main objective of this study was to determine if a short and intense 4-week cardiac rehabilitation program could yield a positive impact on arterial rigidity.

Method A cohort study was performed on Leopold Bellan foundation. One hundred and ninety eight cardiac patients referred for cardiac rehabilitation program after acute events were included in this study. Arterial stiffness is defined by a PWV value greater or equal to 10.

Results At the beginning, 59% of our patients have rigid arteries. After 20 sessions of cardiac rehabilitation, this number is significantly reduced to 51% (p=0.12). Patients with arterial stiffness have accumulated more major cardiovascular risk factors, and have had less exercise capacity than others. However they benefit similarly from the cardiovascular rehabilitation program.

Conclusion We observed that arterial stiffness, as reflected by the PWV, tends to decrease after short-term ambulatory cardiac rehabilitation program. Short ambulatory cardiac rehabilitation program for cardiac patient after an acute event has a positive effect on arterial rigidity.

The author hereby declares no conflict of interest

0240

Cardiac rehabilitation in diabetic patients

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Introduction Diabetes mellitus (DM) is increasing in prevalence in France and is now more common in patients entering cardiac rehabilitation (CR). Only a few studies have focused on the effects of cardiac rehabilitation in patients with DM but it is still unclear if they gain the same benefit from a CR program as do non diabetics.

Objectives The aim of this study was to compare the effects of exercise-based CR on cardiac risk factors and exercise parameters in a series of diabetic and non diabetic individuals.

Methods Between 2009 and 2013, 386 patients were consecutively referred to our institution after an acute cardiac event. Our CR program consists of 4 weeks (20 sessions) of CR program.

Results At the beginning, 59% of our patients have rigid arteries. After 20 sessions of cardiac rehabilitation, this number is significantly reduced to 51% (p=0.12). Patients with arterial stiffness have accumulated more major cardiovascular risk factors, and have had less exercise capacity than others. However they benefit similarly from the cardiovascular rehabilitation program.

Conclusion We observed that arterial stiffness, as reflected by the PWV, tends to decrease after short-term ambulatory cardiac rehabilitation program. Short ambulatory cardiac rehabilitation program for cardiac patient after an acute event has a positive effect on arterial rigidity.

The author hereby declares no conflict of interest

0245

Gender related differences on cardiac rehabilitation benefits for heart failure

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Background Female heart diseases are underdiagnosed and undertreated. They are also probably under referred to cardiac rehabilitation (CR). The aim of our study is to compare CR benefits between men and women.

Methods A total of 442 patients suffering from heart failure were referred to our center for CR between 2010 and 2014. Only 67 were women (15%). All patients had physical examination, electrocardiogram, echocardiography and a cardio-pulmonary exercise test (CPET) before and at the end of CR.

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