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Eccentric training in chronic heart failure: Feasibility and functional effects. Results of a comparative study
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Introduction.– The positives effects of exercise training in chronic heart failure (CHF) have been demonstrated for concentric exercises (CON). However, eccentric training (ECC) could represent a valuable alternative to CON, thanks to its larger impact on muscle function, despite lower requirements for the cardiovascular system [1] not assessed in CHF patients. This is mainly due to the absence of consensus on personalization strategy, exposing to muscle deleterious effects. Our objective was to evaluate the feasibility and functional improvement related to ECC compared to CON in CHF.

Methods.– Thirty patients were randomized either to ECC (n = 15) or CON (n = 15) training (20 sessions). ECC training was personalized on the level of perceived exertion (RPE, 9–11 on Borg scale [2]), while CON was based on the power corresponding to the first ventilatory threshold. Tolerance was assessed by visual analog scale (VAS) at the end of the sessions and heart rate (HR) and the number of painful articular localisations but not with only gonarthrosis and kinesiophobia, factors that must be evaluated also in the post-surgical outcome. Finally, a high perception of effort (Borg’s scale) was only associated with the cardiac consequences of the test, in favor of a central origin.

Results.– The distance of the 6MWT is negatively correlated to the BMI. It implies that all the process that diminish the BMI have a potential impact on this parameter. Our study has found an association between the results of the 6MWT and the number of painful articular localisations but not with only gonarthrosis and kinesiophobia, factors that must be evaluated also in the post-surgical outcome. Finally, a high perception of effort (Borg’s scale) was only associated with the cardiac consequences of the test, in favor of a central origin.

Conclusion.– The distance of the 6MWT is negatively correlated to the BMI. It implies that all the process that diminish the BMI have a potential impact on this parameter. Our study has found an association between the results of the 6MWT and the number of painful articular localisations but not with only gonarthrosis and kinesiophobia, factors that must be evaluated also in the post-surgical outcome. Finally, a high perception of effort (Borg’s scale) was only associated with the cardiac consequences of the test, in favor of a central origin.

References
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The 6 minute walk test and before bariatric surgery: Which interest?
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Keywords: Obesity; Bariatric surgery; 6 minute walk test

Introduction.– Obesity is responsible of a decrease in the ability to walk. The 6 minute walk test (6MWT) is an easy test for the evaluation of the functional ability of patients with cardiac, respiratory diseases and it is highly reproducible in obese individuals [1].

Objectives.– To evaluate the correlations between the markers of obesity and different parameters measured before and after a 6MWT.

Population.– One hundred and thirty-three patients (mean age 40.2 years) seen in a multidisciplinary evaluation before bariatric surgery. The mean Body Mass Index (BMI) was 48.5 kg/m², the mean waist circumference (WC) was 132 cm. Methods.– All the patients have realised a 6MWT. Have been measured: the total distance, the percentage to the theoretical distance (%DT), the walk-work (WW), the SaO2, the frequence rate (FR), the blood pressure before and after the test, the relative cardiac cost (RCC), the and the number of painful articular score. Results.– The distance was significantly and negatively correlated with the BMI (r = −0.5; P < 0.0001), the WC (r = −0.36; P < 0.0006), the articular score (r = −0.25; P < 0.01) and the kinesiophobia (P < 0.04). The speed, the SaO2 before and after the test were correlated negatively with the BMI. The RCC was correlated significantly with the distance, % DT and the WW. The WW was different between the sex (P < 0.005) but the distance and the % DT were not. A high diastolic pressure after the test was the only parameter associated to the Borg scale before and after the test (P < 0.01).

Conclusions.– The distance of the 6MWT is negatively correlated to the BMI. It implies that all the process that diminish the BMI have a potential impact on this parameter. Our study has found an association between the results of the 6MWT and the number of painful articular localisations but not with only gonarthrosis and kinesiophobia, factors that must be evaluated also in the post-surgical outcome. Finally, a high perception of effort (Borg’s scale) was only associated with the cardiac consequences of the test, in favor of a central origin.

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