HEART RATE VARIABILITY DURING RECOVERY AFTER MAXIMAL EXERCISE

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Introduction.
Heart Rate Variability (HRV) studies have allowed to value in non-invasive form the vegetative activity on the heart (3). Diverse authors have studied the HRV, for this reason several meetings have taken place to establish the methodology of this technique (1).

Objectives.
Analysis the difference of power spectral in the two phases of the recovery.

Material and Methods.
30 males of 27.7 (3.2) years, 72.3 (7.4) kg, 178.2 (5.7) cm and 56.6 (8.7) mlkg-1min-1. Study protocol: Maximal test of continuous load (5w12seg-1) on cicloergometer, followed by five minutes of recovery which included two minutes of active recovery (phase I) and three minutes of passive recovery (phase II) both on cicloergometer. We registered the heart rate with a polar system during recovery. The intervals RR were analyzed with the Polar Precision Performance R⃝ (Polar Electro Oy, 2005, Finland). In the statistical analysis we carried out a one way analysis and a non parametric test (Wilcoxon). The significance level was fixed at p<0.05.

Results.
The values of the spectrum were: (VLF%) phase I: 28.2, phase II: 7.9 (p <0.001); low frequency (LF%) phase I: 45.3, phase II: 39.9 (p=0.136); high frequency (HF%) phase I: 26.4, phase II: 51.9 (p <0.001); LF/HF phase I: 2.6, phase II: 1.2 (p <0.0064).

Discussion and Conclusions.
During the recovery period, and in accordance with other authors (2), we could observe a change in the spectrum of frequencies and a reduction of LF component and increase of HF as the recovery advances. There are differences in the spectrum of frequencies among the phase I and the phase II of the recovery. This variation suggests a different vegetative modulation for both phases during the recovery (3).

Bibliography.

Keywords: Recovery, Heart Rate Variability, Exercise