INTRODUCTION.
Heart Rate Variability (HRV) study, beside having a clinical interest, it has also worried researchers in exercise response and training adaptation. Although heart rate recovery (HRR) has been used as a cardiovascular index in multiple tests, there is little information about the physiological mechanisms that explain the process of heart recovery after exercise (1).

OBJECTIVE.
To study the power spectral parameters during recovery in two groups with different training levels.

MATERIAL AND METHODS.
Two groups have participated in the study: endurance group (E), 20 triathletes (VO2max: 59.8 ml·kg\(^{-1}\)·min\(^{-1}\)) and sedentary group (S), 10 students in Physical Activity and Sport Sciences (VO2max: 50 ml·kg\(^{-1}\)·min\(^{-1}\)). Study protocol: Maximal test with incremental loads of 5w·12seg-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. Heart rate was registered with a polar system during recovery. The intervals RR were analyzed with the Polar Precision Performance (Polar Electro Oy, 2005, Finland). For statistical analysis it was used a t-Student test. The significance level was fixed at p<0.05.

RESULTS.
Phase I: The values of Low Frequency spectral (LF%) for S group was higher (52.3) than E group (42.1) (p<0.008); However, the values of High Frequency spectral (HF%) were higher for E group (27.34) than for S group (24.5) (p=0.589); In addition, LF/HF were higher for S group (2.96) than E group (2.45) (p=0.570). The values of HRR for S group were higher (142.7) than E group (132.8) (p<0.026).
Phase II: The values of LF and HF spectral were similar for both groups, without significant differences between them. The values of HRR for S group were higher (114) than E group (103.3) (p<0.037).

DISCUSSION AND CONCLUSIONS.
There are differences of power spectral between E and S groups in the two phases of recovery. Although the values of HF spectral were higher in E group, our results don't allow us to confirm the prevalence of parasympathetic activity in trained persons (2; 3) in relation to S group.

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HEART RATE VARIABILITY DURING RECOVERY IN TWO GROUPS WITH DIFFERENT TRAINING LEVEL.
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