LOW ANAEROBIC THRESHOLD AND MAXIMUM OXYGEN UPTAKE IN FIBROMYALGIA

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Abstract

Fibromyalgia (FM) patients have been reported to have low maximum oxygen uptake (VO_2 max) and therefore are considered unfit by American Heart Association (AHA) criteria. However this reports did not take into account variables such as weight, body weight index (BWT) and anaerobic threshold (VT).

The aim of this study was to compare VO_2 max and VT in a population of FM patients and healthy sedentary controls (HSC) matched by sex, age, wighr and BWT.

Fifty-five FM women (ACR-90 criteria) between 18-60 years old and rr HSC were studied. All were submitted to the maximum treadmill incremental test. Expired gas analyses were performed with VISTA CPX metabolic system (VACUMED, USA). Ventilatory anaerobic anaerobic threshold (VT) and VO_2 max were determined. Patients fitness was classified according to AHA and Brazilian (CEMAFE) VO_2 max tables. Student's test was used to compare oxygen consumption between the teo groups.

According to AHA, 50% of the FM patients were below the average levels of fitness. In the Brazilian tables (CEMAFE), 80,8% were below the average. In FM, VO_2 max was significantly lower (25,78 ± 5,20 vs 30,57 ± 5,23 ml/kg/min. $p < 0.000001$) and so was the VT (16,76 ± 3,10 vs 19,01 ± 4,14 ml/kg/min. $p < 0.001$).

These results confirms previous reports of lower oxygen uptake in FM. Probably, these patients have lower activity levels than healthy sedentary individuals.

Maximum oxygen uptake and anaerobic threshold are decreased in FM, probably due to a significant decrease in physical activity, as a consequence of pain and fatigue.