RELATIONSHIP BETWEEN DAILY PHYSICAL ACTIVITY, PHYSICAL PERFORMANCE AND SYMPTOMS OF CHRONIC FATIGUE IN PATIENTS WITH SARCOIDOSIS

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Abstract

Objectives: Scientific reports have shown the importance of health related quality of life measurement. In the light of these results it seems to be important to establish a relationship between fatigue, respiratory function and exercise capacity in sarcoidosis patients. The aim of the study was to evaluate the relationship between quality of life, daily physical activity, physical performance, and respiratory function in patients suffering from sarcoidosis.

Methods: Seventeen patients (age: 46.8±8.8 years) suffering from sarcoidosis for less than 4 years completed the following questionnaires: Fatigue Assessment Scale (FAS), Quality of Life Scale (SF-36 questionnaire) and Dyspnea Borg Scale. Physical activity (PA) assessment was performed using accelerometers (accelerometer ActiGraph GT3X+, USA). The first PA indicator was the number of steps per day (steps/day) while the other indicator was daily energy expenditure of physical activity (kcal/kg/day). Respiratory function (FVC, FEV1, DLCO), 6MWT, and aerobic capacity evaluation (VO2max) (ergospirometer Metalyzer 3B-2R; Cortex, Germany) were performed in all patients.

Results: The mean daily PA (4566 ±2378 steps/day) and physical performance (VO2max 21.8±5.9 ml/kg/min) were lower compared with predicted values in all patients. Significant negative correlation was observed between FAS and 6MWT ($r = -0.62$; $P<0.008$) and between SF-36 and 6MWT ($r = -0.55$; $P<0.02$). No correlations were found between FAS, SF-36 and spirometry or aerobic capacity. Lower quality of life (physical and mental) was associated with an individualized increase of fatigue and dyspnea scales ($r = 0.72$; $P<0.001$ and $r = 0.85$; $P<0.002$, respectively).

Conclusions: The study findings suggest that physical activity in patients with sarcoidosis was lower than the standards for the population of healthy subjects. Fatigue Assessment Scale and Quality of Life Scale seems an efficient method of predicting fatigue in patients suffering from sarcoidosis.

Key words: exercise, fatigue, sarcoidosis