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LETTER TO THE EDITOR

Physical Activity in Patients with Sarcoidosis: The Role of Cardiac and Musculoskeletal Involvement

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Dear Editor,

I read with great interest the manuscript of Cho et al. regarding physical inactivity in patients with pulmonary sarcoidosis [1]. Reduced daily activity is a cardinal characteristic of several respiratory disorders and is associated with impaired quality of life and increased mortality; thus shedding light in the association between physical activity and sarcoidosis may provide valuable clinical and prognostic information for this patient group.

In this study, although several objective measures were utilized to evaluate physical capacity, accelerometers were only applied for 8 days, a period which is quite short, as the authors also report. Moreover, physical activity data were finally analyzed for only 6 full days and the cut-off point of 8-h usage per day was applied to include a day in the analysis. Previous studies of physical activity monitoring in patients with COPD applied accelerometers for longer duration [2], so variation of physical activity among patients and controls, in this study, might have not been fully captured. Moreover, climatic variations have shown to affect the physical activity in both healthy patients and patients with COPD; thus to obtain accurate comparisons between the group of sarcoid patients and the controls, they should use the accelerometers either during the same week or during weeks with similar weather conditions [2].

Physical activity was significantly lower among sarcoidosis patients and this difference may be due to several factors. Controls tended to be younger than the sarcoidosis patients and increasing age is a known factor associated with sedentarism. Cardiac dysfunction is another potential factor, as sarcoidosis may provoke cardiomyopathy and induce cardiac arrhythmias [3]. Although in the study of Cho et al. all subjects with known cardiac disease were excluded from both the groups, subclinical cardiac involvement is very frequent in sarcoid patients, and may be present in cardiac autopsies in as high as 80% of the cases, depending on the patient's ethnicity [3]. Moreover, musculoskeletal manifestations of sarcoidosis (including arthralgia and myopathies), although rare, may be present and further impact the physical functioning of the patients [4].

In conclusion, reduction of physical activity levels and increased exertional symptomatology among patients with sarcoidosis may be attributed to a variety of causes, as sarcoidosis is a multi-systemic disorder. Large, future studies are needed to provide further insight in the exercise limitation and physical functioning of sarcoid patients. As cardiopulmonary exercise testing allows the integrative assessment of ventilatory, cardiovascular and musculoskeletal responses during exercise and detects even subclinical abnormalities regarding these responses, its systematic utilization in the functional assessment of these patients may provide important clinical information.

Compliance with Ethical Standards

Conflict of interest All authors declare that they have no conflict of interest.

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