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LEVEL OF PHYSICAL ACTIVITY IN PATIENTS WITH OLIGOARTICULAR, POLYARTICULAR AND SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS-PRELIMINARY DATA

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BACKGROUND

Juvenile idiopathic arthritis (JIA) is an inflammatory disease of unknown etiology that affects children and adolescents. Many patients may present weakness, atrophy and muscle dysfunction, fatigue, chronic pain, joint deformities and decreased muscle strength and function. These clinical manifestations commonly lead patients to a sedentary lifestyle, which in turn aggravates these same complaints, thus generating a vicious circle. Some studies show that aerobic and strength exercise can improve endurance, flexibility, quality of life and symptoms related to the disease. The objective of this study was to assess the level of physical activity in patients with polyarticular, oligoarticular and systemic JIA.

MATERIALS AND METHODS

We included JIA patients aged between 10 and 18 years old, who presented a score on the Childhood Health Assessment Questionnaire (CHAQ) from 0 to 0.5. All patients used a triaxial accelerometer for a week, taking it off for bathing and sleeping. Measurement of time spent on sedentary activities and physical activities of light, moderate and vigorous intensity is being carried out.

RESULTS

Our data collection was temporarily interrupted by the coronavirus disease 2019 (COVID-19) pandemic. Preliminary data: we included 8 patients, 4 boys and 4 girls, aged between 10 and 15 years old. The activity levels measured by the accelerometers were 526.42 minutes of rest per day (± 98.00), 229.93 (± 50.59) minutes per day of light physical activity, 22.60 (± 10.05) minutes per day of moderate physical activity, 7.72 (± 8.40) minutes per day of vigorous physical activity, with a total physical activity level of 30.32 (± 15.53) minutes per day and an average number of 5892 steps (± 2244) (Table 1).

Table 1. Mean and standard deviation of activity levels measured by accelerometers.

Activity levels	Mean	Standard deviation (SD)
Rest (min/day)	526.42	± 98.00
Light physical activity (min/day)	229.93	± 50.59
Moderate physical activity (min/day)	22.60	± 10.05
Vigorous physical activity (min/day)	7.72	± 8.40
Total physical activity level (min/day)	30.32	± 15.53
Steps (per day)	5892	± 2244

CONCLUSION

All patients analyzed had a physical activity score compatible with a sedentary lifestyle, according to the data collected by the accelerometers. The study will continue as soon as the patients' life routine returns to the state before the pandemic.