Abstract

Purpose: The aim of this research was to determine whether there is a difference in the presence of minimal cerebellar signs, hypermobility and dyspraxia in the group of patients with idiopathic scoliosis (IS) and a control group of individuals without IS.

Methods: 11 patients have been selected for this research with IS and 11 individuals without IS as a control group. The International Cooperative Ataxia Rating Scale (ICARS) was used for examination of cerebellar signs. Hypermobility was evaluated with ten tests according to Janda. The presence of pendulum reflexes was determined by examination of patellar and triceps reflex, while dyspraxia was analyzed by means of the Czechoslovak test.

Results: Patients with IS scored significantly worse in ICARS than the control group (p < 0.05). IS patients presented with significantly more pronounced hypermobility in head rotation (p = 0.0384) and forward bending (p = 0.0409) tests comparing to the control group. No significant difference between the two groups was identified in pendulum reflexes and the Czechoslovak dyspraxia test.

Conclusion: The study confirms significantly more positive signs of ataxia and asynergy in a group of patients with IS comparing to control group. Hypermobility was significantly more pronounced in head rotation and forward bending tests in IS group. Overall hypermobility assessment approached the level of statistical significance between the two groups. No significant difference in pendulum reflexes and dyspraxia was found between the groups.