An Exploration of Neurophysiological Symptoms in Patients with Joint Hypermobility Syndrome and their Impact on Quality of Life.

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Theme: Research, knowledge translation; Targeted level of learning: Multiple

Purpose: The purpose of this study was to explore the prevalence of neurophysiological symptoms in patients with Joint Hypermobility Syndrome (JHS) and their impact on quality of life.

Relevance: Clinical experience suggests that patients with JHS suffer from neurophysiological symptoms that contribute to skill and health impairments which might impact on quality of life.

Methods A sample of 90 JHS-patients (mean age 34.7 ± 9.9 years), diagnosed according to the Brighton Criteria were compared with 113 healthy volunteers (mean age 35.7 ± 12.9) with no musculoskeletal pain. Neurophysiological symptoms were collected in a self report questionnaire. The Functional Difficulties Questionnaire was used for the assessment of developmental coordination disorder (DCD). A pain chart was employed to collect data relating to musculoskeletal pain. The SF-12 medical outcomes questionnaire was used for assessing quality of life.

Analysis: Chi-square was employed to compare group proportions. Continuous numerical data comparisons were analysed using independent sample t-tests. Regression analysis was employed to analyse multiple variables.

Results: Patients with JHS were significantly more likely to report the following than healthy volunteers; autonomic symptoms (70%, 12%); gastrointestinal symptoms (71%, 9%); DCD (56%, 19%) and chronic fatigue syndrome (31%, 1%). The mean number of pain sites reported for patients with JHS were 9.83 ± 4.18. Patients with JHS reported significantly lower physical component summary scores (PCS) of the SF-12 than healthy volunteers ($p < 0.001$). Pain was a significant predictor of reduced PCS of the SF-12 ($p < 0.001$) in a model that explained 23% of the variance.

Conclusions Neurophysiological symptoms were common. Pain was a significant contributor to the health burden of patients with JHS. Further research is required to explore the implications of these symptoms in relation to the central nervous system.

Implications: There is a requirement to acknowledge and understand the multidimensional nature of JHS.

Key-words: 1. Joint hypermobility syndrome 2. Pain 3. Quality of life
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