THE IMPACT OF TEMPERATURE SENSITIVITY ON THE STAY OF MULTIPLE SCLEROSIS PATIENTS IN A REHABILITATION INSTITUTION DURING A YEAR

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Background and Aims

Multiple sclerosis (MS) is a chronic autoimmune neurodegenerative disease characterized by demyelination of the central nervous system (CNS), which leads to a slowdown or blockage of the transmission of nerve impulses between nerve cells. Its incidence and prevalence are increasing every year, and in Croatia in 2024, 8.518 people with MS were recorded. The distribution of demyelinating lesions among patients is very heterogeneous, and the clinical picture is diverse. Among patients, there is a very high prevalence of thermoregulation and temperature sensitivity disorders, during which signal transmission in neurons in the CNS is affected. This is manifested in a transient worsening of certain previously present symptoms (Uhthoff's phenomenon), or pseudorelapse. In order to stimulate the neuroplasticity of the CNS, a rehabilitation program is initiated. MS patients in Croatia undergo rehabilitation in rehabilitation institutions once a year. Given the temperature sensitivity of patients, certain physical therapy procedures are limited, while some recommendations limit going out when outside temperatures are above 30°C. All of this could affect the period of year during which rehabilitation will be carried out.

Methods

Data processing of MS patients in Special hospital for medical rehabilitation - Toplice Lipik, during the period from 2017 to 2024.

Results

In Toplice Lipik, 350 to 400 MS patients access rehabilitation annually. During the year, an increased number of visits was observed from September to November and in May, i.e. in the period of the year when the average monthly temperatures in the continental part of Croatia are lower compared to the warmest months.

Conclusion

In patients with multiple sclerosis, a variation in visits to the rehabilitation facility is observed throughout the year, which may be related to temperature sensitivity.

Keywords: multiple sclerosis, rehabilitation, temperature sensitivity