Abstract

Objectives: This diploma thesis briefly summarizes the current knowledge about the neurophysiological and functional somatosensory influence of sedentary and non-sedentary occupations on the individual. The experimental part compares the quality of somatognostic functions in cohorts with sedentary occupations (SO) versus non-sedentary occupations (NSO). The NSO group positions and movements often alternate and static positions are not held for long periods.

Methods: Both groups had the same number of probands. Ore-emptive questionnaires provided anamnestic data for each individual. Afterwards, somatosensory functions were assessed using six selected tests; 2 tests for upper extremity proprioception (UEP), 2 tests for lower extremity proprioception (LEP) and 2 tests for body size perception.

Results: There was a significant difference in the results of the four tests measuring quality of proprioception of the upper and lower extremities. The NSO group showed more accurate results. In the UEP test measured in sitting posture, there was an average deviation 4.4° in the SO group, and 3.1° in the NSO group (p = 0.021). In the UEP test measured in standing posture, there was an average deviation 4.0 cm in the SO group, and 3.0 cm in the NSO group (p = 0.025). In the LEP test measured in standing posture, there was an average deviation 4.3 cm in the SO group, and 3.3 cm in the NO group (p = 0.007). In the knee joint proprioception test there was an average deviation 8.8 cm in the SO group, and 6.0 cm in the NSO group. In 2 tests assessing body size perception, the NSO group demonstrated more accurate findings, but the difference between the groups was not statistically significant.

Conclusion: The study suggests that the type of occupation influences quality of proprioceptive perception. Individuals with sedentary occupation showed diminished quality of limb proprioception than individuals with non-sedentary occupation.

Key words: somatognosis, proprioception, body scheme, body size perception