Abstract

**Aim:** The aim of this thesis „Examination of vegetative system in hereditary neuropathy“ is to consider the level of physical fitness, physical activity level and quality of autonomic function in patients with hereditary neuropathy Charcot Marie Tooth and an assessment of interactions of these parameters, especially with regard to possible influence by the presence of autonomic neuropathy and with regard to neurological symptoms.

**Background:** Although vegetative neuropathy was mentioned in the first publication about CMT, it is not widely discussed topic as part of it.

**Methods:** Seventeen probands underwent spiroergometry, heart rate variability test, six minute walk test, rating by the CMT Neuropathy Score and Overall neuropathy disability scale and completing the IPAQ questionnaire.

**Results:** We found symptoms of autonomic neuropathy in group of patients with CMT, especially high-frequency part of heart rate variability spectrum has a particularly significant decrease. Patients with autonomic neuropathy have shown a low fitness and functional capacity, tendency to obesity and hypertension. The observed correlation of autonomic neuropathy and neurological impairment was very weak.

**Conclusions:** We find a neuropathy of the autonomic nervous system in patients with hereditary motor and sensitive neuropathy CMT, which affects their physical fitness and which is a risk factor for other complications. The autonomic neuropathy is not directly related to the degree of motor and sensitive neuropathy.