

## **ABSTRACT**

### **Assessment of functional capacity and quality of life after spinal cord injury in the cervical of active and inactive patients**

**Introduction.** Spinal cord injuries are one of the main causes of disability in Poland and in the world. Tetraparesis, constraints related to the performance of basic activities of daily life, lack of full autonomy, psychosocial problems are the consequences that accompany patients after spinal cord injuries. Because of the consequences - motor paresis and a sedentary lifestyle, resulting from damage to the spine, much attention is paid to physical activity in people that suffer this type of injury.

**The aim of the study.** Guided by the weight of the problem, it was decided to evaluate the functional performance of patients after spinal cord injury in the cervical spine and see what factors determine the functional status in the group. Also attention was drawn to the quality of life and factors that may have an impact on subjective and objective measures of life satisfaction of the surveyed population.

**Material and method.** The study involved 80 people after damage of transverse spinal cord in cervical part. The study group consisted of men aged 20 - 50 years, of which 40 (50%) patients were randomized to actively - male who train sport on wheelchair, and 40 (50%) of respondents to the group of inactive - people failed to take any physical activity. Physically active men were classified on the basis of participation in organized activities - wheelchair rugby. Minimum participation time was 90 min. / per day 2 times a week. Those in the second group led a passive lifestyle, did not participate in any recreational activities.

The study was carried out using the following tools:

- 1 Questionnaire of own authorship by containing Imprint, data about lifestyle, health condition of the subject.
- 2 Konstancinska Functional Scale
- 3 Standardized questionnaire assessing quality of life WHOQOL-Bref
- 4 Beck Depression Scale

**Results.** The study found highly significant differences in the assessment of the functional status of persons between the group of active men and among physically inactive people. Respondents from the group taking regular physical activity performed better in all evaluated activities. The greatest differences were seen in the activities related to the toilet and dressing up. Washing, dressing individual pieces of clothing - putting on socks, gloves, buttoning buttons is not a problem for most active men, while only a few people in the second group were able to independently cope with these activities. Differences between groups were also evident in the assessment of quality of life. Men taking regular physical activity better evaluated various aspects of life satisfaction and self-esteem health status than their peers from the other group. Different results were also in the assessment of the emotional state between the two groups. People from active group felt less depressed and low mood compared with men who had any physical activity.

**Conclusions.** The results show that regular physical activity is associated with better physical fitness, self-esteem and higher quality of life among people after spinal cord injury. The study also showed that people who practice wheelchair rugby are more independent from the environment, which is associated with better functioning in everyday life.

**Keywords:** spinal cord injury, quality of life, functional performance, physical activity.