

## **SUMMARY**

**OBJECTIVE:** The purpose of the study is the functional assessment of patients in the preoperative and postoperative treatment of cervical discopathy, with particular emphasis on the mobility of the cervical spine, the strength of the hand muscles, the level of disability and quality of life, symptoms of depressive disorders and pain.

**MATERIAL AND METHOD:** The study included 160 people (80F and 80M), the mean age of the participants was 55.24 years  $\pm$  7.48 years, which formed the experimental group (performed cervical discectomy) and the control group. Each of the experiment participants had a set of functional tests (the range of mobility of the cervical part of the spine and the strength of the hand muscles). All participants completed their own questionnaire and a number of standardized questionnaires, including the VAS pain scale, SF-20, NDI, the Copenhagen scale, and PHQ-9.

**RESULTS:** A highly statistically significant improvement in the range of mobility of the cervical part of the spine and an increase in the squeezing force of both hands were found in all of the experimental groups. The results of the VAS scale showed a statistically significant reduction in the neck and upper limbs both patients with cervical myelopathy and patients with cervical spine pain syndrome. For patients with cervical spine pain syndrome, improvement was observed in all parts of the NDI questionnaire and in most of the questions in the questionnaire for patients with cervical myelopathy. The research proved that the quality of life and functioning of the experimental group improved significantly after cervical discectomy surgery. The perceived pain in the neck and upper limbs was reduced, as well as depressive disorders. The number of cervical spine segments did not significantly affect the severity of pain in the neck and lower extremities of the operated patients and did not affect their overall quality of life.

**CONCLUSIONS:** 1. Removal of the degenerate intervertebral disc during cervical discectomy removes pressure on the nerve roots, significantly reducing pain in the neck and upper limbs, both in the group of patients with pain syndrome and myelopathy, and significantly improves muscle strength of both hands. 2. Reduced cervical spine, resulting from cervical discectomy, increases the range of mobility of the cervical spine, reduces depressive symptoms, and improves the quality of life and functioning of patients with cervical pain syndrome and cervical myelopathy. 3. The number of segments of the cervical spine segments influences the quality of the functioning of the investigated experimental subgroups. 4. Research needs to be continued on a larger group of patients, taking into account long-term postoperative evaluation.