POSTOPERATIVE REHABILITATION OF PATIENTS WITH HERNIATED DISC OF THE LUMBOSACRAL SPINE

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Abstract. Treatment of degenerative diseases of the spine is a relevant multidisciplinary problem. Despite the high-quality and timely intervention on the spine, some patients have an unsatisfactory clinical outcome. Correctly and timely postoperative rehabilitation based on a multimodal patient-oriented personalized approach can improve the effectiveness of treatment for this category of patients. The article presents the results of a study conducted by the authors of the postoperative muscular-functional status, as well as the dynamics of objective parameters under the influence of a physical rehabilitation program in 18 patients who underwent surgical treatment for degenerative lesions of the lumbosacral spine.

Keywords: surgical treatment, degenerative diseases of the spine, objective instrumental assessment, personalized approach.

INTRODUCTION

Treatment of degenerative diseases of the spine is currently a pressing multidisciplinary problem. The main clinical symptom of this pathology is back pain. Thus, according to various literary sources, up to 70% of people in the population at least once in their lives experienced such back pain that forced them to see a doctor, and 19% were forced to resort to surgery due to the lack of sufficient effect from conservative therapy [1].

MATERIALS AND METHODS

In accordance with existing clinical recommendations, all patients with degenerative lesions of the lumbosacral spine receive a course of conservative

treatment for at least 4 weeks and only if it is ineffective are they referred for surgical treatment, with the exception of cases of cauda equina syndrome and pelvic disorders, when emergency surgery is indicated [2]. According to epidemiological studies, approximately 30% of patients with degenerative lesions of the spine and back pain require surgical treatment [3]. Despite the high efficiency of surgical interventions on the spine and significant development of technologies that allow achieving greater results using minimally invasive methods, the frequency of unsatisfactory outcomes of surgical treatment remains quite high. Thus, according to foreign authors, the frequency of recurrence of intervertebral disc herniations reaches 5–21% [4]. This range of values is explained by the different interpretation of the term “recurrence of a disc herniation” from the point of view of radiologists and neurosurgeons, as well as by the fact that radiological changes at the level of surgery do not always correlate with clinical symptoms, and therefore a “false recurrence” is diagnosed.

RESULTS AND DISCUSSION

However, the term “rehabilitation treatment” is quite ambiguous. This is due to the fact that the rehabilitation process is a global strategy for managing the patient at the postoperative stage to restore lost function and integrate the patient into everyday life, and not just the isolated use of individual methods and technologies. Based on this concept, postoperative rehabilitation currently includes several fundamental areas [2]:

• patient training (motivational interviewing and assessment of the psychological state) and self-monitoring;

• physical rehabilitation methods, compensatory strategies and the formation of the correct motor stereotype (strength training; stretching exercises, increasing the range of motion; aerobic and anaerobic exercise; conducting exercises under control and without it);

• manual therapy (massage, mobilization and soft tissue techniques, traction);

• physiotherapy (ultrasound, interference currents, transcutaneous electrical neurostimulation, balneotherapy, etc.);

• acupuncture (acupuncture, electropuncture, acupressure);

• pharmacological correction as needed;

• social support and counseling;

• psychological methods (cognitive behavioral therapy);

• lifestyle changes;

• adaptation to working conditions;

• appointment of technical rehabilitation equipment (selection of orthoses, corsets, crutches, wheelchairs for patients with disabilities).

It has been proven that complex rehabilitation programs are more effective than monotherapy, improve the quality of life and reduce the degree of functional limitations of patients after surgery both in the short and long term [1]. Physical therapy methods are the foundation of the rehabilitation program. The optimal period for starting active classes is 4-6 weeks after surgery [3]. The need to include physical exercises and therapeutic gymnastics in the postoperative period plan is currently beyond doubt and is recommended after all types of surgical interventions [4]. However, there are significant difficulties associated with the analysis of the effectiveness of physical rehabilitation after surgery, which is due to the variety of training programs, their variability in terms of content (type of exercises), duration, intensity [2]. In this regard, the choice of a rehabilitation program is also difficult, because the doctor inevitably faces difficult questions: what to prescribe for this particular patient? What exactly will be most effective for him? The course of the postoperative period and the rate of recovery of patients vary significantly and depend on many factors, such as the type and extent of surgical intervention, initial neurological symptoms, duration of the disease, the presence of comorbid pathology, and psychological state. The combination of these factors determines the degree of severity of functional disorders, the assessment of which is a fundamental point in choosing a rehabilitation program.

CONCLUSION

The results of this study showed that patients after surgery on the lumbosacral spine experience a predominantly decreased strength of the back extensor muscles, and an imbalance of the flexor and extensor muscles of the spine. Subsequently, this may be the cause of relapse and the need for repeated operations. A personalized physical rehabilitation program helps to increase the strength of those muscle groups whose strength is reduced after surgery on the lumbosacral spine.

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