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THE INFLUENCE OF DIFFERENTIATED SURGICAL TREATMENT ON THE QUALITY OF LIFE OF PATIENTS WITH HERNIAS OF THE LUMBAR SPINE

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Abstract
The article of data on the effectiveness of modern methods of treatment of intervertebral hernias of the lumbar spine is presented. Historical aspects of the development of spinal neurosurgery, the main methods of surgical treatment. This publication presents the main methods of surgical treatment of herniated intervertebral disc, characterizes the positive and negative aspects of each method. A differentiated approach to the treatment of intervertebral disc herniations in the lumbar spine. Assessment of quality of life and pain syndrome using questionnaires. Determining the effectiveness of surgical treatment and the impact on the quality of life of patients.

Keywords: diagnostics, herniated disc, surgical treatment, conservative treatment, differentiated an approach.

Relevance

Lumbar intervertebral disc herniations have a significant impact on the lives of patients. Pain syndrome arising from intervertebral disc herniations limits a person's ability to work fully in up to 70% of cases and dramatically worsens the quality of life of patients [1,2,4,12].

In order to more accurately measure the subjective sensations of patients, various scales and questionnaires have been developed, and it is of great importance that these questionnaires and scales were filled in by the patients themselves or, in exceptional cases, from their words. In addition, various standardized questionnaires are filled in to more accurately determine the condition of patients. The use of standardized questionnaires makes it possible to comparatively evaluate the results of treatment, predict the outcome of surgery, determine risk groups and adequately select patients [5,6,7,10,12].

According to the literature, back pain in patients may be different and depend on the type of root compression in intervertebral disc herniations; pain occurs due to mechanical compression of the spinal nerve roots by a fallen fragment of the intervertebral disc pulp nucleus [3,8,9,11,12].

When diagnosing with MRI, it is easy to determine root compression. Nerve compression leads to deterioration of their blood supply, and, consequently, to the development of ischemia and damage. However, there are often situations in which clinical and electrophysiological symptoms of radiculopathy are detected in patients without characteristic changes according to MRI data. In some cases, MRI reveals root deformation, but there is no substrate for their compression [6,12].

The results of clinical and laboratory studies indicate that the cause of pain is often inflammatory changes in the nerve roots, and not just mechanical compression. In lumbar stenosis, which is the second most common cause of planned spinal surgeries, the mechanical factor is of decisive importance. Degenerative changes in the disc with its protrusion and decrease in height, together with deformation of the arches, vertebral processes and joints, as well as compaction and hypertrophy of the yellow and posterior longitudinal ligaments lead to direct compression or ischemia of the nerve roots [1,2,6,12].

Currently, the quality of life is assessed by various scales and questionnaires. For a complete study of the quality of life of patients, it is of great importance to assess the overall quality of life, quality of life by disease and symptom of the disease [5,10].

Thus, the issue of differentiated surgical treatment of intervertebral disc herniations remains not fully resolved. Pain syndrome arising from intervertebral disc herniations sharply reduces the quality of life of patients.

Purpose of the study: improving the results of treatment of patients with lumbar spine hernias by using differentiated treatment tactics with an assessment of the quality of life.

Material and methods

The study is based on the results of observations of 165 patients with lumbar pain who were treated in the inpatient department of the Tashkent Medical Academy, a multidisciplinary clinic, and the neurosurgery department from 2019 to 2023.

To establish a diagnosis and choose a treatment method, all patients underwent a comprehensive examination, including clinical, neurological and instrumental research methods.

In our studies, questionnaires were used to assess the quality of life of patients: the European Quality of Life Questionnaire Euro Qol-5D and a visual analogue scale (VAS) to determine the intensity of pain.

Results and discussion

The results of observations of 165 patients with lumbar pain who were treated in the inpatient department of the Tashkent Medical Academy, a multidisciplinary clinic, and the neurosurgery department from 2019 to 2023 were studied.

All patients were divided into three groups according to treatment methods, severity of lumbar osteochondrosis pain syndrome, and somatic status.

The first group included 53 (32.2%) patients who underwent conservative treatment, blockades, physiotherapy, and other treatment methods. The second group included 55 (33.3%) patients who underwent endoscopic methods of removing a herniated disc between the 4-5 and 5-1 sacral vertebrae of the lumbar spine. The third group consisted of 57 (34.5%) patients who underwent surgery to remove a herniated disc using intralaminar access.

By age, patients are distributed according to the WHO classification, which provides for the allocation of age groups: young age 14-19 years; younger middle age 20-44 years; older middle age 45-59 years; elderly age 60-74 years; old age 75-89 years; In our observations, patients were aged from 24 to 79 years.

Distribution of patients by age and gender showed that among the patients, men predominated, there were 116 (70.2%), and women - 49 (29.8%), which is associated with the physical exertion of men during work. The majority of patients 68 (41.5%) were older middle and old age, the maximum number of patients fell on the age group 60-74 years, 50 (30.4%), which is consistent with the data of world scientists.

Examination of the somatic status revealed that out of 165 patients, 67 (40.5%) had somatic pathology, manifested as arterial hypertension in 51 (31.0%) patients, ischemic heart disease in 13 patients (7.8%). Diabetes mellitus was noted in 18 (11.2%) observations, liver pathology in 4 (2.6%) patients and renal failure in 1 (0.9%). It should be noted that a combination of two or more somatic diseases was noted in the same patient, this was especially typical for cardiovascular diseases.

In our studies, 112 (67.8%) of 165 patients underwent surgical treatment, the indications for surgical treatment were: cauda equina syndrome with increasing dysfunction of the pelvic organs and radiculo-ischemic manifestations; duration of radicular pain syndrome or pain in the lumbar region for at least 4 weeks; intervertebral disc herniation of any localization, but only at one level, confirmed by MRI with axial sections; lack of effect from conservative treatment.

Neurological symptoms in the second and third groups in total 173 cases, they could combine several symptoms at once in one patient in both groups. The most frequent complaint presented by patients of the second and third groups was pain in the lumbar spine 38 cases, the second most frequent complaint was gait disturbance and sensory disturbance 36 cases each, the third most common complaint was a forced body position due to pain syndrome 27 cases.

Analysis of the level of damage to the roots of the equine tail in the studied 165 patients showed the following results, twice as much observation at the level of LV-SI 106 (64.3%) compared to LIV-LV 59 (35.7%) this is due to the greatest load on the lumbar spine associated with a low-mobility sacrum.

Positive results among the 165 patients studied were noted in 156 (95.6%), without changes in 9 (5.4%). The indicators in all 3 groups were good, since a differentiated approach to the treatment of patients with lumbar pain is always justified.

This proves the effectiveness of treatment methods for patients with lumbar disc herniations using a differentiated approach.

The quality of life, study of 165 patients was achieved using the European Quality of Life Questionnaire EuroQol-5D and a visual analogue scale (VAS) to determine the intensity of pain.

In all study groups, the parameters of the EuroQol-5D questionnaire such as pain/discomfort and anxiety/depression worsened the most. The study of the quality of life of patients in all groups was conducted before and after surgical treatment.

Analysis of the results of the quality of life (QOL) study of 165 patients showed that the data obtained in all three groups are different, the deterioration of the QOL indicators of the first group does not differ much from normal, in the second group it was revealed that the QOL indicators of patients moderately worsened, in the third group this indicator of the QOL of patients worsened greatly and slowly recovered, this is due to the course of the disease and degenerative changes in osteochondrosis of the spine with concomitant somatic pathology.

The pain/discomfort and anxiety/depression descriptors were deviated from the norm to a greater extent in the second and third groups and were slowly restored, the QOL indicators of the patients of the first group returned to normal immediately after surgical treatment.

A study of 165 patients showed that the QOL parameters pain/discomfort and anxiety/depression suffer the most, this is facilitated by the emotional state of patients.

Pain syndrome as a strong irritant primarily affects the emotional state of patients, being a provoking factor in the deterioration of the QOL of patients.

For a full assessment of the QOL of patients, it is necessary to use two or more questionnaires covering more impaired descriptors and indicators. To study the parameters of pain syndrome, we used a scale (VAS) for the completeness of the study.

VAS scores before surgery revealed mild pain (1-3 points) in 20 (37.7%) patients in the first group, moderate pain (4-6 points) in 7 (13.2%), mild pain in 21 (38.2%) patients in the second group, moderate pain in 33 (60%), very severe pain (7-9 points) in one patient, unbearable pain (10 points) in one patient, mild pain in 6 (11%) patients in the third group, moderate pain in 42

(73.6%), very severe pain in 8 (14%), and unbearable pain in 1 (2%) patient.

After surgery, pain syndrome regressed to the point of disappearance in all three groups, mild pain persisted only in two patients in the first group, one patient in the second group, and four patients in the third group, which proves the effectiveness of treatment methods with a differentiated approach.

The visual scale and its five parameters allow a more detailed examination of the pain syndrome: no pain (0 points), mild pain (1-3 points), moderate pain (4-6 points), very severe pain (7-9 points), unbearable pain (10 points), which means the maximum possible sensation of pain syndrome.

Conclusions:

1. Distribution of patients by age and gender showed that among the patients, men predominated, there were 116 (70.2%), and women - 49 (29.8%), which is associated with the physical exertion of men during work. The majority of patients 68 (41.5%) were of middle and old age, the maximum number of patients fell on the age group 60-74 years, 50 (30.4%), which is consistent with the data of world scientists.

2. Analysis of the level of damage to the roots of the equine tail in the studied 165 patients showed the following results, twice as many observations at the level of LV-SI 106 (64.3%) compared to LIV-LV 59 (35.7%), this is due to the greatest load on the lumbar spine associated with a low-mobility sacrum

3. When examining the somatic status, it was revealed that among 165 patients, 67 (40.5%) patients had somatic pathology, manifested in the form of arterial hypertension in 51 (31.0%) patients, ischemic heart disease in 13 patients (7.8%). In 18 (11.2%) observations, diabetes mellitus was noted, in 4 (2.6%) patients, liver pathology, and in 1 (0.9%), renal failure.

4. In our study, 112 (67.8%) of 165 patients underwent surgical treatment. The indications for surgical treatment were: cauda equina syndrome with increasing dysfunction of the pelvic organs and radiculo-ischemic manifestations; duration of radicular pain syndrome or pain in the lumbar region for at least 4 weeks; herniated disc of any localization, but only at one level, confirmed by MRI with axial sections; lack of effect from conservative treatment.

5. Positive results among the 165 patients studied were noted in 156 (95.6%), unchanged in 9 (5.4%). The indicators in all three groups were good, since a differentiated approach to the treatment of patients with lumbar pain is always justified.

6. The VAS scores before surgery revealed mild pain (1-3 points) in 20 (37.7%) patients in the first group, moderate pain (4-6 points) in 7 (13.2%) patients, mild pain in 21 (38.2%) patients in the second group, moderate pain in 33 (60%) patients, very severe pain (7-9 points) in one patient, and unbearable pain (10 points) in one patient, and mild pain in 6 (11%) patients in the third group, moderate pain in 42 (73.6%) patients, very severe pain in 8 (14%) patients, and unbearable pain in 1 (2%) patients.

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