FACTOR ANALYSIS OF RECURRENT LUMBAR COMPRESSION RADICULOPATHY AFTER MICROSURGICAL TREATMENT

Abdufarrukh Karimov
State Institution "Republican Specialized Scientific and Practical Medical Center of Neurology and Stroke", Tashkent, Uzbekistan

Dilshod Akhmedjanov
Tashkent Pediatric Medical Institute, Tashkent, Uzbekistan

Objective:
To identify risk factors for the development of recurrence of pain and radicular syndromes

Material and Methods
The study was based on the results of microsurgical treatment of 120 patients with lumbar compression radiculopathy. The study group consisted of 10 patients with relapses; 110 cases were observed without relapses up to 12 months after surgery. Initially, among patients, there were cases from minimal disability to the state of being bedridden - the Oswestry index varied from 30% to 98%. We have identified three factors: demographic factors and concomitant pathological conditions, factors of the course of radiculopathy and aspects of the course of the postoperative period. Factor analysis was carried out by comparing the presence of the above-described signs of the disease and using unique statistical analysis methods.

Results
It follows from the clinical material that in all cases of lumbar compression radiculopathy, the primary mechanism was lumbar disc herniation in combination with their degenerative transformations. Gender was not a risk factor (p=0.378), as was age (p=0.585). The mean body mass index (BMI) in patients with relapse was 29.7±2.3 (range 21 to 41), which had no statistical difference (p=0.585) from the mean BMI in the uncomplicated group of 27.8±2.6 (range 18 to 37). Among demographic factors, a significant effect of smoking on relapses was revealed (p=0.026). Among the clinical characteristics, the following risk factors for relapses were identified: duration of the disease for more than three years (p=0.018), duration of conservative therapy for more than 12 months (p=0.007), initially severe pain syndrome (7-9 visual analogue scale (VAS) scores) in the back (p=0.028) and the degree of disability corresponding to 80-100% of the Oswestry index (p=0.003). When analyzing the data obtained during the MRI study of the area of radiculopathy in the preoperative period, the following risk factors for relapses were identified: dysfunction of the sacroiliac joint (p=0.007), the presence of spondylolisthesis (p=0.006), the size of the base of the hernia is more than 25 mm

(p=0.035), the volume of the hernia is more than 3 cm3 (p=0.032), and the retroposition of the apophysis is more than 3 mm (p=0.01).

Conclusion

Risk factors for recurrence after microsurgical interventions for lumbar compression radiculopathy are VAS score of 8-10 points, preoperative Oswestry index of 81-100%, history of smoking, duration of the disease for more than three years, course of conservative therapy for more than 12 months, the presence of dysfunction of the sacrum - iliac joint, spondylolisthesis, the size of the base of the hernia is more than 25 mm, the volume of the hernia is more than 3 cm3 and the retroposition of the apophysis is more than 3 mm.