



Improvement of Radiation Diagnostics of Polysegmental Central Stenosis of the Cervical Spinal Canal of Various Origins

1. Marguba Olimovna
Akhmadzhanova

Received 19th Apr 2021,
Accepted 30th May 2021,
Online 28th June 2021

¹ Andijan State Medical Institute,
Uzbekistan

ABSTRACT: In this article, among the diseases of the central nervous system, diseases of the spinal cord occupy a special place, their prevalence and the complexity of the clinical differentiation of the causes of injuries, even with the use of modern neuroimaging capabilities. The current diagnosis is that various forms of limited or widespread narrowing of the spinal canal due to congenital and acquired causes associated with syndromes that cause significant diagnostic difficulties among secondary lesions of the cervical spine. Myelopathy of the cervix due to stenosis is a disease of the spinal canal, as well as vascular, inflammatory and other diseases that arise in the presence of stenosis of the cervical spine of the computer. Apply reliable diagnostic criteria necessary for determine the significance of stenosis in the genesis of myelopathy.

Keywords: Diagnostic criteria, tomographic examination, peripheral neuropathies, proprioceptive reflexes, spinal canal, body

Introduction

According to research tomographic examination revealed computer stenosis in 87 patients, 30 people were examined as a comparison group, in which neurological examination revealed no signs of root damage and no stenosis in the cervical portion of the computer with computed tomography at the level of the cervix. Patients with mass were excluded from the study, brain pathology, manifested movement disorders, peripheral neuropathies, demyelinating diseases, EMG-confirmed tunnel syndromes, as well as patients over 75 years of age. Examination of 87 patients with cervical computer stenosis by sex men predominated - 58 (66.7%), women 29 (33.3%). Patients ranged in age from 18 to 74 years. The mean age was 49.63 ± 2.4 g.

Material and methods: Anamnesis was sent to all patients - study of patients' complaints, life and disease anamnesis, and clinical neurological examination - the status of an objective examination of the neurological examination, as well as SM and computer MRI examination. In taking the anamnesis, they emphasized the patient's work, attention to the first clinical signs of the disease, triggers, date and circumstances of onset of symptoms, duration of disease, presence or absence of development. For the convenience of information processing, the personal cards of the patient registration where the data obtained are stored, in addition to the above indications, they are diseases that transmit passport data, including trauma, CM infections. Neurological examination was performed according to the generally accepted method (Skoromets A.A., Skoromets A.A., Skoromets T.A., 2012; Matveeva TP, Yakupov

EZ, Belousova MV, 2013) with a standard assessment of the identified violations. Personal data included in the neurological condition: cranial innervation status, sensitivity assessment, motor function check - pyramidal presence muscle weakness, weakness and malnutrition, severity and symmetry of proprioceptive reflexes, impaired muscle tone, walking was also evaluated. Assessment of computer and SM parameters according to MRI data included the following measurements: anteroposterior size of the computer on middle sagittal tomograms, SM, size of SM reserve area, axial tomograms - anteroposterior size of the computer, vertebral body.

The anteroposterior size of the computer was measured in absolute numbers and the size was 12 mm or less when stenosis was detected compared with the results obtained in the comparison group; used the Pavlov-Torg index based on a comparison of the sagittal diameters of the computer and the vertebral body [Pavlov P., Torg J.S., Robie B. et al., 1987], 1.0 was adopted as the norm; measured RPSM. The formations that make up the walls of a personal computer were evaluated.

Statistics for X-rays were used to statistically process the results obtained during the study. The arithmetic mean (M), mean deviation, and mean error were calculated for each indicator in the observation groups arithmetic (m); the results are presented as $M \pm tn$. Analysis of the frequency characteristics of quality indicators was performed using non-parametric methods Pearson criterion, fisher criteria.

The comparison of the quantitative parameters studied in the study groups was made using the student, Mann-Whitney, Wald criteria. We considered $P < 0.05$, generally accepted in medicine, as a criterion for statistical reliability of the findings.

Result and discussion:

Clinical neurological and MP-tomographic examination revealed cervical spinal stenosis of the computer in 87 patients. The remaining 30 had no symptoms on neurological examination.

Cervical-level roots and spinal injuries, and MRI did not detect cervical spinal stenosis of the computer. Analysis of anamnestic data and clinical symptoms allowed to identify the following cervical myelopathy syndromes in patients with PC cervical stenosis: pyramidal syndrome, ALS syndrome, anterior nerve syndrome, syringomyel syndrome, radiculomyelopathy syndrome and Brown-Sequard syndrome.

A feature of cervical myelopathy with ALS syndrome in cervical stenosis was the benignity of the course, the absence of bulbar diseases. Also, the mean maximum age of patients in this group was 55 ± 2.6 g, and there were no females in this group. Anterior nerve syndrome has been characterized by weakness and increased malnutrition between 1.5 and 2 years of age, with a decrease or loss in the distal and proximal muscle groups of the upper extremities. Tendon reflexes consistent with impaired sensitivity with stabilization of disease symptoms. The group of patients with anterior nerve syndrome was the youngest - 40.5 ± 4.8 years only mild clinical manifestations of cervical myelopathy on the JOA scale ($p < 0.05$). Also, this group of patients was characterized by both acquired and joint computed stenosis in equal proportions.

Syringomye syndrome of cervical myelopathy with computed stenosis is characterized by progressive pale paresis, accompanied by segmental-dissociated sensory disturbances boundaries. In contrast to true syringomyelia [Bogdanov EI, 2005], no symptoms of dysgraphic condition, Chiari malformation, arthropathic syndrome, and sensory disturbances were observed. This syndrome is characterized by the average longest duration of the disease - 2 years 9 months. ($p < 0.05$). A feature of radiculomyelopathy syndrome was the average short duration of the disease before treatment - 10 months. and early stages of diagnosis (up to 1 year of age), as well as mild clinical manifestations of cervical myelopathy on the JOA scale ($p < 0.05$).

Accepted stenosis was identified according to the etiological principle, the most common causes of which are degenerative processes, such as hernias and disc herniation (87 people), posterior osteophytes, (22 people), deforming spondyloarthritis, posterior longitudinal hypertrophy (5 people) and yellow ligaments (5 people), retrospondylolisthesis (4 cases) or cervical spine trauma; and joint stenosis existing congenital stenosis is combined with degenerative-dystrophic changes. Stenosis was observed in the majority of patients examined with computer stenosis (78.2%), and combined computer stenosis was detected in the remaining 21.8%. Acquired stenosis in ALS and Brown-Secard syndrome accounted for 64.3% and 66.7%, respectively. Their share in association with non-energetic syndrome stenosis accounted for 53.8% of the total number of patients in the group.

A comparative analysis of the occurrence of computer stenosis observed in all groups revealed differences in its frequency, significant prevalence in the pyramidal syndrome group ($p < 0.05$). Assess the severity of clinical manifestations of the cervix myelopathy, the scale of the Japanese Orthopedic Association was used. Patients on the JOL scale were divided into 3 groups, with no moderate to severe patients among patients with anterolateral syndrome and radiculomyelopathy syndrome, severity of cervical myelopathy.

Conclusion: clinical variants of cervical neurological syndromes myelopathy in cervical spinal canal stenosis and their frequency: pyramidal syndrome - 42.5%, ALS syndrome - 16%, anterior nerve syndrome - 15%, syringomyelia syndrome - 12.6%, radiculomyelopathy syndrome - 10.3%, Brown-Secard syndrome - 3.6%. Fixed purchases (78.2%), due to degenerative-dystrophic changes and combined (combination of congenital stenosis and degenerative-dystrophic changes - 21.8%) stenosis optionscervical spinal canal.

- ALS syndrome polysegmental computer stenosis and relatively late onset of clinical manifestations (55 ± 2.6 years; mean age of patients was 49.63 ± 2.4 years) ($p < 0.05$);
- age (40.5 ± 4.8 years; average age of patients 49.63 ± 2.4 years), the severity of clinical manifestations of mild cervical myelopathy ($p < 0.05$), characterized by the onset of anterior nervous syndrome at a relatively young age ;
- Syringomyel syndrome is characterized by the highest average duration of the disease before treatment, neurological syndromes of cervical myelopathy compared with others ($p < 0.05$);
- for radiculomyelopathy syndrome, the shortest duration of illness and mild severity before treatment clinical manifestations of cervical myelopathy.
- Acquired stenosis occurs in a large age group of patients (51.6 ± 1.5 years), disease duration was short ($p < 0.05$);
- combined stenosis occurs in young people ($43.47 \pm 3.3g$), long duration of the disease, severity of clinical manifestations of shorter twenty cervical myelopathy, mainly polysegmental nature of spinal stenosis

Based on the data of clinical MRI analysis, 87 patients were identified the most diagnostic morphometric indicators of stenosis cervical spinal canal: decrease in anteroposterior volume spinal canal (less than 12 mm), spinal reserve cavities (4.18 mm and less) and the ratio of the channel to the body (Pavlov-Torg index) - 0.8 and less.

LITERATURE

1. Abelskaya I.S. Mikhailov A.N. Actual aspects of X-ray diagnostics of osteochondrosis of the cervical spine at the stages of medical rehabilitation. Bulletin of Radiology and Radiology. 2006; pp22-28.
2. Byvaltsev VA, Shepelev VV, Nikiforov SB, Kalinin AA Isolated and combined degenerative tandem stenosis of the spinal canal of the cervical and lumbar spine: Literature review. Spine surgery 2016; T 13; 2: pp52-61.

3. Vishnevsky A.A. Spinal stenosis of the thoracic spine in a patient with autosomal dominant II-type osteopetrosis. *Research and Practice in Medicine* 2018; T5; 3: pp126-135.
4. Lapteva N.V. Modern methods of radiation diagnostics in vertebralogy. M. "Medicine" 2006; p48.
5. Khalepa R.V., Klimov V.S., Rzayev D.A. Vasilenko I.I., Konev E.V., Amelina E.V. Surgical treatment of elderly and senile patients with desgenerative central stenosis of the spinal canal at the lumbar level. *Spine Surgery* 2018; T 15; 3:pp 73-78.

CENTRAL ASIAN
STUDIES