Morphological peculiarities of peripheral nervous system in multiple sclerosis

Markovska O.V., Awodunmila O.E., Nekrasova N.A.

Kharkiv National Medical University, Kharkiv, Ukraine

Department of neurology №2

Introduction: Multiple sclerosis also known as disseminated sclerosis, is an inflammatory disease causing structural changes in both the Central Nervous System (CNS) and the Peripheral Nervous System (PNS). Cyclooxygenase-2 (Cox-2) expression, endothelia and inducible No-synthase (eNOS and iNOS) in peripheral nerves and vessels of skin in patients with MS was the main aim for research to reveal their peculiarities.

Materials and methods: Skin biopsies from 22 patients with MS (4 secondary progressive, 18 relapsing-remitting) and 5 volunteers were investigated.

Results: On microscopic examination of the skin biopsy, signs of demyelination of nerve fibers, swelling of uneven impregnation appearance of beaded extensions and clavate blisters were observed. Myelin sheaths and axons with inconsistent focal fragmentation and extensions like aneurisms, moderate perivascular and perineural lymphohistiocytic infiltration were observed after Spielmeyer’s method of coloring was used.

Detection of positively stained uniform increased expression of COX-2 and iNOS enzymes in the cytoplasm of Schwann cells, vascular endothelium and granules of cellular structures. A spreading zone of positive eNOS activity far from vessels was revealed but it was less compared to the vessel walls and perivascular spaces.

Conclusions: According to the degenerative and inflammatory changes observed in the Peripheral Nervous System they are associated with endothelial dysfunction in perineural and perivascular spaces.

The diagnostic capabilities of psychodiagnostic methods of identifying the effects of stress and post-traumatic stress disorder

Molchanyuk D.

Kharkiv National Medical University, Kharkiv, Ukraine

Department of psychiatry, narcology and medical psychology

Introduction: The research relevance is caused by modern importance of posttraumatic stress disorders and by number of unresolved diagnostic issues that create a background for many diagnostic errors and discrepancies, interferes the adequate, timely initiated, differentiated treatment and prevention.

Material and methods: Based on examination of 90 persons of both sexes, aged 18-55 years (demobilized combatants, released from captivity, family members of persons affected by the fighting, refugees) using complex of psychodiagnostic methods there were defined their diagnostic capabilities of individuals affected by stress in war conflict. Impact of Event Scale-Revised (IES-R). The questionnaire reveals which symptoms dominate - intrusion, avoidance, increased excitability. Test for wide use, was used to study effects of various traumatic factors (loss of loved ones, a car accident, military events).

Clinical-administrated PTSD scale (CAPS). It allows to estimate the frequency and intensity of identifying the individual disorder symptoms, and the extent of their impact on the patient's social activity. The study of each symptom manifestations is 1 month. Thus it can diagnose disorders caused by recent injuries and dynamics of the patient’s condition in...
case of repeated testing. Mississippi rating scale post-traumatic reactions. Civilian and military options were used. Allows you to evaluate the severity of posttraumatic reactions. Unlike (CAPS) these scales can diagnose late posttraumatic disorders. The results allow to make a differential diagnosis of adjustment disorder.

Symptom Check List-90-revised (SCL-90-R). The technique allows to assess the psychological symptomatic status of both general type patients and persons with mental disorders. Scale of depression. Assessment of depressive symptoms of patients in the present. The disadvantage is the inability to diagnose the presence of depressive symptoms in the past, immediately after the traumatic event, if some time has passed after its inception. Advantages of use were founded: (IES-R) - for initial screening; (CAPS) - for assessing the condition dynamics; - for the diagnosis and differential diagnosis of PTSD during hospital and posthospital stages; (SCL-90-R) to clarify patient management (psychologist or psychiatrist); scale of depression is appropriate only for verification of the patient condition dynamics during antidepressant therapy.

Conclusion: Thus, the results showed the feasibility of using these techniques as complementary diagnostic tools, there were defined the benefits of several methods to solve specific diagnostic tasks.

Nana Ama Christian, Kutzerina N.S.

CLINICAL FEATURES OF MOYA-MOYA DISEASE

Kharkiv National Medical University, Kharkiv, Ukraine

Department of neurology №1

Introduction: Moya-Moya disease is a progressive, occlusive disease of the cerebral vasculature with particular involvement of the circle of Willis and the arteries that feed it. It is more common in women than in men, although about a third of those affected are male. It is necessary to know the clinical picture of this rare condition.

Aim: Clinical features of Moya-Moya disease studying.

Results: Moya-Moya disease mainly affects children, but adults may have the condition. Children may have hemiparesis, monoparesis, sensory impairment, involuntary movements, headaches, dizziness, or seizures. Mental retardation or persistent neurologic deficits may be present. Severe immediate problems include the risk of transient ischemic attack (TIA or “mini-stroke”), in which the blood flow to the brain is temporarily completely blocked; stroke, in which the blockage is sustained; or intracranial hemorrhage, bleeding in the brain. On cerebral angiography there will be stenosis in the terminal portion of the internal carotid artery or the proximal portion of the anterior or middle cerebral arteries. There is also tangled appearance of blood vessels (puffed smoke appearance) on MRI and CT due neovascularization. Adults may have symptoms and signs similar to those in children, but intraventricular, subarachnoid, or intracerebral hemorrhage of sudden onset is more common in adults.

Conclusion: Moya-Moya disease is a rare disease that causes stroke in young people but may also be present in some adults. Once major stroke or bleeding take place, even with treatment, the patient may be left with permanent loss of function so it is very important to treat this condition promptly. Therefore early detection the clinical manifestation will help to commence treatment early as prognosis is favorable.