of pro-inflammatory and thereby anti-tumour cytokines and chemokines. M2-like TAM are stimulated by tumour-derives like interleukines: IL-4, IL-13, IL-10, M-CSF and/or lactic acid. Consequently, M2- like TAM secrete a spectrum of anti-inflammatory and pro-tumour cytokines, chemokines and signalling molecules. Therefore, TAM could be either tumour killing (M1) or tumour promoting (M2); this data suggests that macrophages are attractive targets for improving of new combined immunotherapy to the fight cancer. Combining inhibitors that target the CCL2-CCR2 and CSF1-CSF1R reduces macrophage migration and pro-tumour activation, so this fact stops tumour growth and metastasis formation. More than that, the inhibitors supplies chemotherapeutic regimen in early phase clinical trials.

Conclusions. Certainly, macrophages play an important role in tumour progression and metastasis due to the plasticity they express during activation, especially in vivo. Current approaches to cancer immunotherapy using macrophages involve multiple cytokines and chemokines that can cause immune responses. The application of these therapies have been shown to reduce tumor size and angiogenesis, recruit immune cells to the tumor site, and prevent the polarization of macrophages to an M2 phenotype.

Key words: tumor associated macrophages, macrophage polarization, tumour, immunotherapy

280. THE IMPACT OF DEMYELINATION ON THE NERVOUS SYSTEM

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Introduction. The present study is devoted to vascular disorders, which cause cerebral circulation disorders, which are manifested by morphopathological changes of the vascular nervous system. Research done is necessary not only from the point of view of theory, but it is also important for practical neurology, for a correct assessment of the changes, produced within norms and in various pathologies.

Aim of the study. To study the paravasal and adventitious neurosceptors of blood vessels in some vascular disorders.

Materials and methods. This study was made possible by the use of various classical and contemporary histological techniques (macroscopic, microscopic, histological, histochemical) exploration.

Results. By investigating the cerebral blood vessel receptor, we mention that in vascular affections the nerve elements in the blood vessels undergo different changes. Nerve fibers, as well as receptors with signs of excitement and even degeneration, have been found on various portions of the vessels in their nervous system. There are reactive changes in the nervous system of the wall of the arteries and their branches. The most pronounced changes are supported by the sensory composition of the vessel's nervous system. Many nerve fibers are intensively impregnated with silver. They become thicker, and sinuous. Various forms of varicose thickening appear along them. The most common are in the composition of adventitial nerve bundles and nerve plexus. Such fibers are intensely colored and thicker, and there are sometimes well-defined thickenings (excitation reaction). Much more pronounced structural changes occur on nerve fibers outside vascular nerve plexuses, which are manifested by impregnation with the presence of well-pronounced thickened portions and thin sections of fibers, which sometimes break. The preterminal portions of the nerve fibers are modified differently. The most common are sinuous, intensely colored, deformed. Also, the terminal portions of the receptors, which are manifested by the appearance of pronounced coloration, to the irregular shape of the thickening, are also modified. Myelin nerve fibers show signs of pronounced argentophilia and uneven

outlines, sometimes irregular thickening. Amielin nerve fibers are distinguished by the presence of a large number of varicosities.
Conclusion. In conclusion, we can mention that, by studying the nervous structure of the brain's vascular system in the conditions of chronic and acute vascular pathology, changes were detected, which in fact denotes the presence of the reactive and destructive phenomena of the related nerve fibers. The reversible changes are also noted by the receiver in the reflexogenic areas of the vessels.
Key words: nervous system, blood vessels

281. GENETIC ASPECTS IN PARKINSON'S DISEASE

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Introduction. Parkinson disease is a progressive disorder of the nervous system. The disorder affects several regions of the brain, especially an area called the substantia nigra that controls balance and movement. Although the etiology of Parkinson disease is still unclear, most cases are hypothesized to be due to a combination of genetic- 10% and environmental factors.
Aim of the study. Evaluation of the genetic and environmental factors in etiopathogenesis of Parkinson's disease. Study of the molecular mechanisms involved in the etiology of PD; Evaluation of the major genes for higher risk of PD; Estimating the role of environmental and genetic factors in the onset, development and prognosis PD; Prospects survey prevention and treatment of PD.
Materials and methods. Scientific articles review.
Results. A total of 18 loci in various genes have now been proposed for PD. Mutations within 6 of these loci (SNCA, LRRK2, PRKN, DJ1, PINK1, and ATP 13A2) are well-validated causes of familial parkinsonism. Inheritance is autosomal dominant for SNCA and LRRK2. Inheritance is autosomal recessive for PRKN, DJ1, PINK1, and ATP13A2. Stem cell therapy for Parkinson's disease (Embryonic Stem Cells/ induced Pluripotent Stem Cells (iPSCs) that are adult cells (e.g. skin cells)) is a potential treatment for PD, because the most significant neuronal degeneration is site and type specific (ie, dopaminergic); the target area is well defined (ie, striatum); postsynaptic receptors are relatively intact. Gene therapy has distinct theoretical advantages over conventional treatment for Parkinson's disease as it might preserve or restore dopaminergic neurons through the use of growth factors or alternatively increase the availability of enzymes required for dopamine synthesis.
Conclusions. Neurodegeneration in PD is due to three interrelated molecular mechanisms: changes oxiative, mitochondrial dysfunction and degradation of proteins affected. Major genes are involved in Parkinson disease: SNCA, LRRK2, PRKN, DJ1, PINK1, ATP13A2, GBA. Environmental and genetic factors play an important role in the onset, development and prognosis BP, and they can vary from one patient to another and will depend on the root cause. Perspentivele in prevention and treatment of PD are presimptomatic screening and gene therapy.
Key words: Parkinson's disease(PD), genetic factors, environment factors, stem cell therapy, gene therapy

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282. THE IMPACT OF IMPLEMENTATION OF MEDICAL INSURANCE ON HEALTH INDICATORS OF POPULATION IN THE REPUBLIC OF MOLDOVA