increase in the theta activity in the left occipital cortex indicates the involvement of the visual cortex. We may conclude that VNS has an activating effect on the processes of short-term memory, attention.

Key words: Vagus nerve stimulation, cognition, short-term memory, attention, EEG

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Condition of intramural nerve ganglia in experimental portal hypertension

Primachenko V[1], Sokurenko L[1,2], Kaminsky R[1], Mervinska Y[1], Motorna N[1], Lavrinenko V[2], Kantser O[2]

[1]*Bogomolets National Medical University, Kyiv*

[2]*Educational and Scientific Center "Institute of Biology and Medicine" of Taras Shevchenko National University, Kyiv*

Portal hypertension is a condition that causes structural and functional changes in all organs and systems [1]. This requires careful study. The aim of the work is investigation of the intramural nerve ganglia two weeks after modeling experimental portal hypertension. The experimental study was performed on outbred dogs with all norms of bioethics. Simulation of portal hypertension was performed by means of a one-moment narrowing of the trunk of the liver portal vein [2, 3]. Histological, neurohistological, histochemical, histoenzymatic studies were performed after 14 days. Sections of the pulmonary circulation are characterized by reactive and destructive changes in the intramural nervous system. Neurons undergo changes in the form of edema, hyperargentophilia, chromatolysis, displacement of the nucleus. Nerve fibers mainly show signs of reactive changes: dyschromia, swollen, strongly tortuous. Receptors undergo structural changes in the form of even and uneven thickening along the fibers, hyperargentophilia, vacuolation in the preterminal departments. Content of RNA, the activity of acid phosphatase, AChEase and ATPase in the cell bodies of neurons decreases. Thus, after two weeks of portal hypertension modeling pronounced reactive and destructive changes develop in the intramural nervous system in the direction from the right ventricle to the left atrium.

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