

The aim of this work was to test the ability of L-carnitine (KAR) to increase the permeation of indirect parasympatomimetic 7-methoxytacrine (MEOTA) through the blood-brain barrier. The monitoring of acetylcholinesterase activity (AChE) in the parts of the brain chosen served as index of changes presumed. All experiments were performed in laboratory rats, drugs tested were given systematically.

The modified Ellman's method was used for the determination of the AChE activity. The principle of this method is based on hydrolysis of thiocholin.

The prior administration KAR to MEOTA augmented the inhibition of AChE more in the frontal cortex, septum and basal ganglias and less in the hippocampus. Intraperitoneal administration of KAR was somewhat stronger in comparison with peroral one. The results obtained confirmed the hypothesis of augmentation of MEOTA AChE activity by means of previous KAR administration.