

## **Abstract**

Galantamine is a reversible inhibitor of acetylcholinesterase (AChE). It is recommended for the treatment of mild to moderate Alzheimer's dementia, vascular dementia and dementia with Lewy bodies. Galantamine is characterized as cognitive enhancer with dual mechanism of action (it has also shown activity in modulating the nicotinic cholinergic receptor).

The aim of this work is to determine the effective inhibitory dose of galantamine on the selected route of administration and comparing its central and peripheral effects of galantamine. Determination to proceed on the basis of the findings of AChE activity in the central nervous system (in the frontal cortex, hippocampus, septum, basal ganglia and pituitary gland) and on the contrary peripheral nervous system activity of butyrylcholinesterase has been detected (specifically in the liver and plasma).

The results obtained by the Ellman's method showed that galantamine is generally a weak inhibitor and statistically significant effect is found only at the highest dose used. At the highest dose used can be expected adverse effects of peripheral type.