*Polish Journal of Pharmacology*
Pol. J. Pharmacol., 2004, 56, 367–371
ISSN 1230-6002

## SHORT COMMUNICATION

# 3α,7α-DIHYDROXY-12-OXO-5β-CHOLANATE AS BLOOD-BRAIN BARRIER PERMEATOR

*Momir Mikov[1], Slavko Kevrešan[3,#], Ksenija Kuhajda[2], Vida Jakovljević[1], Velibor Vasović[1]*

[1]Institute of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, [2]Faculty of Sciences, [3]Faculty of Agriculture, University of Novi Sad, 21000 Novi Sad, Serbia and Montenegro

*3α,7α-Dihydroxy-12-oxo-5β-cholanate as blood-brain barrier permeator.* M. MIKOV, S. KEVREŠAN, K. KUHAJDA, V. JAKOVLJEVIĆ, V. VASOVIĆ. Pol. J. Pharmacol., 2004, 56, 367–371.

The aim of the study was to test the efficacy of 3α,7α-dihydroxy-12-oxo-5β-cholanate as a blood-brain barrier (BBB) permeator by examining its effect on quinine uptake into the central nervous system in rats, analgesic action of morphine, and on the sleeping time induced by pentobarbital. The obtained results indicate that sodium 3α,7α-dihydroxy-12-oxo-5β-cholanate can be considered as modifier of BBB permeability, as it exhibited a promoting effect in all three tests. In the test of quinine uptake, methyl ester of 3α,7α-dihydroxy-12-oxo-5β-cholanoic acid (included in the study for comparison) did not show a promoting effect, which can suggest its specific action.

***Key words:*** *bile acid, 12-oxo-cholanate, blood-brain barrier, permeability, quinine, morphine, pentobarbital*

[#] *correspondence;* e-mail: kevresan@polj.ns.ac.yu