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Time-dependent Changes in Concentration of Two Clinically Used Acetylcholinesterase Reactivators (HI-6 and Obidoxime) in Rat Plasma Determined by HPLC Techniques after *in vivo* Administration

<u>Jana ZDAROVA KARASOVA</u>¹⁾, <u>Ladislav NOVOTNY</u>²⁾, <u>Karel ANTOS</u>³⁾, <u>Helena</u> <u>ZIVNA</u>⁴⁾ and <u>Kamil KUCA</u>²⁾⁵⁾

1) Department of Toxicology, Faculty of Health Sciences, University of Defence

2) Center of Advances Studies, Faculty of Health Sciences, University of Defence

3) Department of Public Health, Faculty of Health Sciences, University of Defence

4) Radioisotope Laboratories and Vivarium, Faculty of Medicine, Charles University

5) Department of Chemistry, Faculty of Sciences, J. E. Purkinje University

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A simple and reliable HPLC method for determination of rat plasma levels of clinically used acetylcholinesterase (AChE) reactivators (HI-6 and obidoxime) is presented in our study. Separation was carried out by HPLC using an octadecyl silica stationary phase and a mobile phase consisting of 24% acetonitrile and containing 5 mM sodium octanesulfonate and 5 mM tetramethylammonium chloride (pH 2.3). Following intramuscular administration of equimolar doses of both oximes (22.23 mg/kg), the maximum of HI-6 concentration in rat plasma was reached in about 20 min giving $15.26 \pm 1.71 \mu g/mL$. The distribution of obidoxime was fast; the single maximum $23.62 \pm 3.563 \mu g/mL$ was recorded at about 10 min. HPLC with UV detection presented in our study is a general method which could be applied for quick measurements of bisquaternary AChE reactivators in rat plasma.

[PDF (357K)] [References]

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