Two New Methods Monitoring Kinetics of Hydrolysis of Acetylcholine and Acetylthiocholine

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Hydroxylamine and HPLC methods, measuring *in vitro* kinetics of enzymatic hydrolysis of acetylcholine or acetylthiocholine by cholinesterases, are described. The hydroxylamine method determines the dependence of substrate concentration vs. time, the HPLC method is able to measure simultaneously the time dependences of substrate and both primary products, choline or thiocholine, and acetic acid. Practical determinations are shown, comparison with known (above all Ellman's and pH-stat) methods, advantages and disadvantages are discussed.

Key words: Acetylcholine, Hydrolysis, Kinetics