New and little-known possibilities of edaravone in the treatment of cerebral stroke and extracranial pathology

(to the first anniversary of the use of edaravone in Ukraine)

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Conflict of interest: none

BACKGROUND. Edaravone is a free radical scavenger and inhibits lipid peroxidation and thus reduces oxidative damage to brain cells and other organs. Edaravone is mainly known as an effective agent in the treatment of ischemic stroke and amyotrophic lateral sclerosis.
OBJECTIVE. To investigate the little-known possibilities of edaravone when it is used in clinical practice.
MATERIALS AND METHODS. To solve the task, a search and analysis of full-text articles was conducted in the PubMed, Web of Science, Google Scholar, and Scopus databases. The search was conducted using the key word "edaravone" and included English-language and Ukrainian-language publications over the past 5 years (from April 2018 to April 2023).
RESULTS. A total of 518 publications were identified and analyzed. Edaravone has been found to improve the clinical course and may be useful in the treatment of central nervous system diseases, depression, post-traumatic stress disorder, cognitive dysfunction, oncological and infectious diseases (in particular, coronavirus disease), many poisonings, etc. All this dictates the need for further clinical studies to explore new and unexpected possibilities of edaravone.

KEY WORDS: edaravone, peroxyl radicals, antioxidants.

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