

# Application of a free radical scavenger edaravone in patients with hemorrhagic stroke

**O.A. Halushko**

PL Shupyk named National Healthcare University of Ukraine, Kyiv, Ukraine

**Conflict of interest:** none

**BACKGROUND.** The free radical scavenger edaravone helps to reduce the area of ischemic injury and improve the long-term effects of stroke, and is therefore widely used in the treatment of ischemic stroke. However, the role of edaravone in the treatment of hemorrhagic stroke patients has not yet been clarified.

**OBJECTIVE.** To investigate the feasibility and effectiveness of the use of the free radical scavenger edaravone in the treatment of patients with acute hemorrhagic stroke.

**MATERIALS AND METHODS.** A search was conducted for studies and systematic reviews for the keywords “acute stroke”, “intracerebral hemorrhage”, “subarachnoid hemorrhage”, “hemorrhagic transformation”, “edaravone” in the Google Scholar database published between 2003 and 2020.

**RESULTS.** The use of edaravone in patients with intracerebral hemorrhage was accompanied by activation of anti-inflammatory and reduction of pro-inflammatory peptides, activation of anti-apoptotic mechanisms, reduction of lipid peroxidation and oxidative trauma, reduction of permeability of the hematocenosus.

**CONCLUSIONS.** The main effects of edaravone have been to reduce neurological deficits, accelerate the rate of recovery of neurological disorders, and improve functional outcomes. Thus, the introduction of edaravone in patients with hemorrhagic stroke has proven to be reliably effective and safe.

**KEY WORDS:** acute stroke, intracerebral hemorrhage, subarachnoid hemorrhage, edaravone.

DOI: 10.32902/2663-0338-2021-1-28-36