

**Background:** During an acute stroke, reactive oxygen species are overproduced and the endogenous antioxidative defense systems are disrupted. Therefore, antioxidative therapy can be a promising scheme to reduce the severity of stroke. Neumentix is a novel antioxidative supplement produced from a patented mint line and contains a high content of rosmarinic acid (RA). Although Neumentix has proven diverse efficacy and safety in clinical trials, its effect on strokes is unclear. **Methods:** Mice that were treated with Neumentix or vehicle for 14 days underwent transient middle cerebral artery occlusion (tMCAO) for 60 min. Mice were sacrificed 5 days after tMCAO. **Results:** Neumentix preserved body weight after tMCAO, showed a high antioxidative effect in serum, and reduced infarction volume compared to the vehicle. The expression of 4-hydroxy-2-nonenal, Ne-(carboxymethyl) lysine, and 8-hydroxy-2'-deoxyguanosine was reduced in Neumentix-treated mice. **Conclusion:** The antioxidative effect of Neumentix was confirmed. This is the first report to demonstrate the antioxidative effect of Neumentix on strokes.