



Extended analysis of the neuroprotective properties of tempol and edaravone assessed as drug-dependent reduction in infarction volumes (A) and brain edema (B) 72 hours after completion of 2-hour MCAo.

In these experiments, 5 μ L of vehicle (DMSO), tempol (500 nmols), or edaravone (500 nmols) were injected into the lateral ventricle 15 min before initiation of ischemia (MCAo). After 3 days, brains were gently removed, sectioned, and the infarcted tissue was visualized with TTC staining. Infarction volumes were quantified with ImageJ software. Sham-operated animals were subjected to the same surgical procedures as all other groups but without vessel occlusion. **A**, Average infarction volumes \pm SE in sham operated animals (n=6), and animals injected with vehicle (n=12), tempol (n=11), or edaravone (n=9) as indicated. N.D., infarction not detected. **p<0.01, tempol vs. either DMSO or edaravone. **B**, Average brain edema volumes \pm SE in the same experimental groups. Brain edema was measured as mismatch between total volumes of ischemic and non-ischemic hemispheres. #p<0.01 tempol vs. DMSO. See text for additional methodological details.