P23 Neuroprotective Effects of KC0244, a Glycine Site Antagonist, in a Rat Model of Transient Focal Ischemia

Hee-Jung Ku, *Churlmin Seong, *No-Sang Park and Changbae Jin

Bioanalysis & Biotransformation Research Center, Korea Institutue of Science & Techn
*CNS Laboratory, Bio-Organic Division, Korea Research Institute of Chemical Technol

Antagonists acting at the glycine site of the NMDA receptor have been gaining safer alternatives for stroke therapy because they have few adverse effect competitive and noncompetitive NMDA antagonists. Therefore, the neuroprotect novel glycine site antagonist KC0244 were evaluated in a rat model of transient comparison with GV150526A in a developmental phase. Middle cerebral artery oc was produced by insertion of a silicone-coated 4-0 nylon monofilament to the o in male Sprague-Dawley rats under isoflurane anesthesia. After 90 or 120 min retracted and the ischemic tissue reperfused. In 90-min MCAO model, GV150526A was administered 30 min before MCAO or immediately after MCAO. In 120-min MC KC0244 or GV150526A (10 mg/kg, i.p.) was administered 1 hr before MCAO or imme MCAO. Infarct volume was measured 24 hr after MCAO using the 2,3,5-triphe chloride staining method. In 90-min MCAO model, treatments with GV1505 significantly reduce infarct volume although they tended to slightly reduce cor approximately 19% compared with the nontreated group. In 120-min MCAO model with GV150526A did not either significantly reduce infarct volume although the reduce total infarct volume by approximately 16% compared with the vehicle-tre However, 1-hr preischemic and immediate treatments with KC0244 reduced total i 39 and 30% (corrected total infarct volume by 44 and 32%), respectively, co vehicle-treated control group. The results suggest that KC0244 can provid against transient focal ischemic damage with greater *in vivo* potency than GV150