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Poster Sessions

The role of triply nitric oxide synthases in brain cerebral ischemia.

Kanako Kuniyoshi¹, Haruaki Kubota^{1,2}, Katsuhiko Noguchi¹, Mayuko Sakanashi¹,
Toshihiro Matsuzaki¹, Jyunko Nakasone¹, Hiroaki Shimokawa³, Kazuhiro Sugahara³,
Manabu Kakinohana², Masato Tsutsui¹

¹*Department of Pharmacology and*, ²*Department of Anesthesiology in Graduate School of Medicine at Ryukyu University.*, ³*Department of Cardiology in Tohoku University*

There are some reports that neuronal and inducible NOSs (nNOS, iNOS) exacerbate cerebral infarction whereas endothelial NOS (eNOS) conversely alleviates cerebral infarction in a model of middle cerebral artery (MCA) occlusion. But the role of the whole NOSs system in cerebral infarction is not clarified yet. Although it has been examined in pharmacological studies with non-selective NOS inhibitors, the results are quite inconsistent, possibly because of non-specificity of the agents. In order to investigate the role of the whole NOSs system in the pathogenesis of cerebral infarction, in the study, we generated mice in which all 3 NOS isoforms are completely disrupted, and compared cerebral infarct size after middle cerebral artery occlusion between the triple NOSs^{-/-} and wild-type.