

Behavioral effects of 2,3-dihydro- and oxoisoaporphine derivatives in post stroke-depressive like behavior in male balb/c mice

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In this study, antidepressant-like effects of intra-cerebroventricularly administration of oxoisoaporphine derivatives in post stroke-depressive like behavior were examined through despair swimming and tail suspension models. For this aim, acute ischemic stroke was induced by bilateral common carotid arteries occlusion which significantly changed the normal behaviors of male balb/c mice. We performed stroke-induced anhedonia test as a key result of post stroke depressive like behavior by determination of sucrose consumption. Results show that some 2,3-dihydro- and oxoisoaporphine derivatives modified the abnormality in the behaviors through decreasing in the immobility time in tail suspension and despair swimming models and increasing in the swimming and climbing times in despair swimming model. We concluded that these alkaloids showed antidepressant actions and therefore can be used for treatment of post stroke depressive like behavior in acute ischemic stroke patients. © 2013 Bentham Science Publishers.

Acute ischemic stroke

Antidepressant

Depressive-like behavior

Oxoisoaporphine

2,3 dihydro 7h dibenzo[de,h]quinoline 7 one

aporphine derivative

oxoisoaporphine derivative

sucrose

unclassified drug

anhedonia

animal behavior

animal experiment

animal model

antidepressant activity

article

brain ischemia

carotid artery obstruction

chromatography

climbing

controlled study

depression

despair swimming test

drug synthesis

immobility

male

meta analysis (topic)

mouse

nonhuman

open field test

post stroke depression

rearing

tail suspension test

Anhedonia

Animals

Antidepressive Agents

Aporphines

Behavior, Animal

Depression

Disease Models, Animal

Hindlimb Suspension

Male

Mice

Mice, Inbred BALB C

Stroke

Swimming