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Poster Presentation

The Effect of Toad Skin Extract on Alzheimer's Disease – Lnduced Depression Based on Behavioral Test in rRats

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Abstract

Alzheimer's disease is the most common cause of dementia with associated symptoms such as depression, anxiety and psychosis. Increased expression of inflammatory mediators in postmortem brains of people with AD has been reported, and epidemiological studies link the use of anti-inflammatory drugs with reduced risk for the disorder. Present studies have shown that toad medicines decrease inflammation through a variety of mechanisms, including inhibition of NFμB and its signaling molecules and pathways. The aim of this study was to evaluate the efficacy of toad skin secretion on recovery from stress and depression caused by AD based on the behavioral tests. 50 rats were divided into 5 groups; 1) control, 2) Alzheimer's recipient of beta-amyloid (1-42) into cerebral ventricular injection of 2 μl, 3-5) Alzheimer recipient toad skin secretion respectively by 20, 40 and 80 ml/kg in 6 times during 20 days; respectively. After this period, the behavioral tests (forced swimming test, open field test, elevated plus maze) was used to assess stress and depression. I.C.V infusion of Alzheimer's beta amyloid was increased immobility time in samples. Results showed a significant reduction duration of immobilization in the dose of 20 about ($p<0.01$) and at doses of 40 and 80 ml/kg approximately ($p< 0.001$), respectively. The open field test's result indicate an increase in the number of homes passed were dose-dependent increase in dose level 80 ($p<0.05$) respectively. The elevated plus maze's results indicate an increase the duration of the deployment in open arms dose of 80 to limit ($p<0.001$) respectively. Establishment of the close arm time is a measure of stress in a dose of 80 significantly extend ($p<0.01$) declined. the result indicated that the use of toad skin secretion improved depression caused by AD, so compounds in this secretion can be considered as a candidate relive depression and AD. However, further studies are needed to determine its exact mechanism of action.

Keywords: Toad, Alzheimer's Disease, Depression

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