

ДОПОЛНИТЕЛЬНЫЕ СВЕДЕНИЯ ОБ АВТОРАХ

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Авторы заявляют, что у них нет конфликта интересов.

Investigating the effects of *Inonotus rickii* extracts on the muscle contraction intensity

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The aim of this study is to test the effect of aqueous, ethereal and alcoholic extracts of the fruit bodies of the wood-destroying fungus *Inonotus rickii* on locomotor activity resulting from contraction of both cross-striated and smooth muscles. The pharmacological activity of *I. rickii* raw materials was determined in vitro using the dose-response curve method (smooth muscles) and in experiments with oral intake of extracts (CNS-mediated effects on cross-lacing muscles). The aqueous extract of fungal material showed an increase in the motor activity of smooth muscles compared to standard caffeine, which indicates the ability of fungal extract to have a stimulating effect on the synapses. It was found that *I. rickii* extracts have an effect on smooth muscle contraction similar to the acetylcholine. It was shown that the greatest stimulating activity demonstrates an aqueous extract that may be a result of inhibitory effect of diethyl ether and ethanol on synapses. The described effects put on the agenda both the fractionation of active extracts and further experiments on the therapeutic applications of their described properties. As a field of possible application of this kind of substances can be considered the cardiovascular remodeling, the maintenance of smooth muscle tone during a number of surgical interventions, and the palliative cure of disseminated cancers.

KEYWORDS: acetylcholine; central nervous system; diazepam; caffeine; medicinal mushrooms; receptor agonists; stimulation of motor activity; *Inonotus*