

cological action, to improve the application of dihydroquercetin effect to meet the clinical needs of medical applications.

Key words: Dihydroquercetin; Research progress; Outlook; Pharmacological effects

Dihydroquercetin as an important kind of flavonoids compounds exists in various plants, the content is higher in the larch, especially Douglas fir. Nowadays, dihydroquercetin anticancer, because of oxidation, antiviral, resistance to radiation, resistance to diseases of the cardiovascular system, improve microcirculation of capillary, improvement the action such as brain blood circulation, antiplatelet agglomeration. This article emphatically from the structure and function of the second hydrogen quercetin, detection means, the extraction method and application development and so on four aspects elaborates the research progress on its.

1 Dihydrogen grid structure and function of the skin pigment Dihydro quercetin (dihydroquercetin), alias taxifolin (taxifolin), also called taxifolin, Douglas fir, double hydrogen quercetin or (2R, 3R) - dihydro quercetin. Formula for $C_{15}H_{20}O_7$, the relative molecular mass is 304.25, the CAS: 480-18-2, the physical properties: light yellow powder, colorless needle crystal (50% ethyl alcohol), melting point is 240 degree. Solvent soluble in ethanol, acetic acid, such as boiling water, slightly soluble in cold water, almost insoluble in benzene.

Dihydro quercetin has many important biological active function, and activate a variety of enzymes can be enough to produce different physiological effect. Dev. et al. The study found that 2 hydrogen quercetin can of normal lymphocytes increase produce different degree of inhibition. The study found that two hydrogen quercetin can slightly inhibit the growth of p shape cell carcinoma (HTB43), in a certain concentration range gently stop HTB43 cells grow.

2 Detection method The detection method has five methods include, thin layer scanning method; spectrophotometry; high performance liquid chromatography; reversed phase high performance liquid chromatography and the last method is that high performance liquid chromatography - mass spectrum usage.

3 The extraction technology Assassination plum rose extract technology was studied by the method of solvent extraction, dahurian rose fruit rose stalk dihydro quercetin was extracted in research. In the extraction process by orthogonal test to determine dihydro quercetin extracted from dahurian rose fruit rose the optimal conditions for: extraction temperature 30 t, acetone concentration was 70%, and solid-liquid ratio is 1:16 and time take 4 h.

4 Summary and Prospect This article from the structure and function of dihydro quercetin, detection method and take the four aspects are detailed described the research progress of extraction technology. Because the second hydrogen quercetin has medicinal properties such as anti-tumor, anti-virus, anti-oxidation, so now extensively applied in medicine, health care products, food, agriculture, industry, tobacco industry, such as further depth development dihydro quercetin extraction technology is very important for its development and should be used.

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MAIN PHARMACODYNAMIC RESEARCH OF QIXUANYIJIANG ON TREATMENT FOR HYPERTHYROIDISM

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Abstract Objectives: The purpose was to study and develop the curative effect and mechanism of Qixuanyijiang on hyperthyroidism. Methods: By dividing 60 SD female rats into control group and model group, hyperthyroidism model rats were copied by injecting Yersinia enterocolitica into rats' caudal vein. The model groups were randomly divided into model group, Qixuanyijiang high, medium, low dose group and positive medicine group respectively. Then indicate the changes in the appearance, weight, serum and thyroid tissue of Qixuanyijiang-treated group. Results: Qixuanyijiang could significantly improve the body weight of hyperthyroidism rat, and reduce the levels of serum 3,5,3' - triiodothyronine (T3), thyroxine (T4), increase the levels of thyrotropic-stimulating hormone(TSH), and improve the thyroid tissue pathological changes. Conclusions: The result indicated that Qixuanyijiang has a good therapeutic effect to hyperthyroidism rat.

Key Words: Qixuanyijiang; hyperthyroidism; Pharmacodynamics

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EFFECTS OF TRANSCRANIAL DIRECT CURRENT STIMULATION ON ATTENTION IN HEALTHY PEOPLE

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Abstract Attention - a key aspect of daily human activities. We studied the effect of transcranial direct current stimulation in healthy volunteers. These results confirm the positive effect of transcranial stimulation, but requires continued research.

Key words: tDCS, transcranial direct current stimulation, brain, attention

A large amount of information and the need to perform many tasks, are one of the main factors for the development of multitasking in the activities of modern man. In this connection, the ability of a person to concentrate his attention and to keep him on a chosen task becomes especially topical. To improve this cognitive skill with variable success, pharmacological drugs, meditation, awareness techniques, etc. are used. Transcranial stimulation of the brain by direct current, a technique of noninvasive brain stimulation widely studied in modern neurophysiology and neurology that allows to change the activity of cortical centers and improve or suppress cognitive skills related to this area.

The aim of the study was to assess the effect of transcranial stimulation of the brain with a direct current on a person's ability to pay attention.

Materials and methods 30 people participated in the experiment, which were randomly divided into 3 groups of 10 participants. The first group - 10 people, received transcranial stimulation of the brain with a direct current with the parameters indicated below. The second group - 10 people, received a placebo-stimulation. The third group - a control group of 10 people, did not receive stimulation. Stimulation of the brain was carried out with the following parameters: current-1.5 mA, duration - 20 minutes before the passage of tasks. Points of exposure F7-F8 in accordance with the International 10-20 system. At the end of the stimulation, the participants underwent two computer tests aimed at assessing the attention of cognitively healthy people. The Feature Match test is a task in which a user needs to quickly compare two images and determine their similarity. If the images are identical, the user clicks "Correct", if not "Wrong". The task requires focusing on simple figures. The complexity of the test automatically adapts to the results obtained. The Pitchblack test is a task in which it is necessary to simultaneously track the movement of several balls and determine the moment when they pass the central part of the target. The task allows to assess the ability of a person to concentrate attention on several objects. To assess the reliability of the obtained results, the reliability criterion $p < 0.001$ was used.

Results Statistical analysis showed an improvement in attention, namely a reduction in the number of errors in the Pitchblack test in the stimulation group compared to the control group ($p < 0.001$). However, there was no significant difference between active and placebo stimulation.

Conclusions As a result of the study, we found a positive effect of transcranial stimulation of the brain with direct current on attention in healthy people ($p < 0.001$). However, the effectiveness of active stimulation does not differ in its effectiveness with placebo. The obtained results testify to the necessity of carrying out additional studies with variations in the parameters of stimulation (time of exposure, current strength, as well as the moment of exposure-before or during the time of passing the test tasks).

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RESEARCHING INFLUENCE AEROSOLS ELECTRONIC CIGARETTES (VAPE) ON INDICATIONS OF BLOOD AND INTERNAL ORGANS OF RATS DURING 30 DAYS

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Abstract Smoking is one of general problems now a days. By information WHO, smoking is main factor of risk of cancerogenesis, which comes about 22% events death of cancer, including death of cancer of lungs - 1.69 billion per year. *Амурский медицинский журнал №4 (20) 2017*