

## **THE EXPERIMENTAL STUDY OF THYROID-STIMULATING PROPERTIES OF AQUEOUS EXTRACT FROM FEIJOA LEAVES**

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Treatment and prevention of thyroid diseases are important medical and social problems of healthcare. Today it is recognized as the most common endocrine abnormality in the world. Pharmacological correction of hypothyroid state aimed mainly at restoring the level of thyroid hormones through the use of hormone replacement therapy. However, despite the existing arsenal of drugs with thyroid-stimulating action, the need for effective and safe means is stored. Recently prevention and comprehensive treatment of thyroid diseases, more attention is paid to the use of herbal medicine that is safer and with proper combination no side effects. Medicinal plants are the most promising source of biologically active substances with thyroid-stimulating action. One of the herbs used in unconventional medicine to treat and prevent diseases of the thyroid gland is Feijoa.

The aim of our research was to study the thyroid-stimulating properties of aqueous extract from Feijoa leaves.

The pharmacological screening of the effects of aqueous extract from Feijoa leaves on functional activity of the thyroid gland was performed in healthy rats at doses of 0.5, 1.0, 1.5, 2.0 and 2.5 ml. It was determined the level of thyroid hormones –triiodothyronine ( $T_3$ ) and thyroxine ( $T_4$ ) in blood plasma by enzyme multiplied immunoassay after the experimental period. Increasing of the concentration of the hormones in the blood serum of experimental animals compared with the control group indicates about thyroid-stimulating effect of researched substance.

The results of experimental studies demonstrate the stimulating effect of aqueous extract from Feijoa leaves. All studied doses observed a significant increase of  $T_3$  hormone in the serum of experimental animals compared with control group. Accordingly, a dose of 0.5 ml - 65%, 1.0 ml - 71%, 1.5 ml - 31%, 2.0 ml - 34%, 2.5 ml - 31%. Analyzing the results on the concentration of thyroxine we may note similar to the dynamics of changes in the concentration of  $T_3$  hormone effect, but less expressive. Increasing of  $T_4$  levels in serum takes place in doses of 0.5 ml and 1.0 ml.

So, the result of experimental studies shows a thyroid-stimulating effect of aqueous extract from Feijoa leaves, which leads to conclusion about the viability and feasibility of further research.