

appetite, which may be due to the attraction of emotional memory, whose mechanism consists in reproducing actions that lead to the growth of dopamine, in particular, eating.

Conclusions. Thus, according to the conducted studies results, it can be argued that the level of serotonin and dopamine in the brain is an important part of the regulation of eating behavior, but, as you know, not the only levers of influence on the appetite formation, which requires further research.

COMPARATIVE STUDY OF BEARBERRY LEAVES POLYPHENOL EXTRACTS HYPOGLYCEMIC ACTIVITY

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Introduction. The modern diet and lifestyle lead to metabolic disorders development. Quite often the insulin resistance (IR) state is registered in patients. One of the main features of IR is tolerance to glucose, so the improving of glucose metabolism must be the primary task. In this regard, plant diet has benefits because of polyphenols and other biologically active compounds.

Aim. The aim of this study was to conduct the comparable oral glucose tolerance test (OGTT) after treating rats by bearberry (*Arctostaphylos úva-úrsi*) leaves polyphenol extracts with the different way of extraction.

Materials and methods. 24 male rats weighting 160-180 g, who were kept in standard vivarium conditions, were randomly divided into 4 groups. One group was intact animals (G1), other 3 groups were intragastrically administered plant origin complex preparations during 2 weeks: ethanol polyphenol extract (EPE) of bearberry leaves (G2), water polyphenol extract (WPE) of bearberry leaves (G3) and control group (G4). Polyphenol extracts were administered in dose 9 mg of polyphenols on 100 g of body weight. On the 15th day of the administration was conducted OGTT. Fasting animals, except G1, were given intragastrically glucose solution in dose 3 mg/100 g of body weight. Blood samples for glucose analysis using glucometer were taken at time 0, 15, 30, 60 and 120 minutes after glucose load.

Results and discussion. In 30 minutes induced hyperglycemia resulted in 1,78-fold increase of blood glucose level on the average of control group (G4). In the G2 hyperglycemic rats, maximum reduction of blood glucose level by 27.32% compared to control level was fixed on 60th minute of the experiment. However maximum reduction of 23.54% was observed in control on 120 minute compared to the beginning of the experiment. In generally our results indicate that the EPE administration is relatively more potent than WPE administration, so the way of ethanol extraction allows to store more biologically active compounds. Bearberry leaves contain arbutin, flavonoids and alkaloid compounds that may stimulate glucose utilization by the tissues.

Conclusions. Thus, we have found that bearberry leaves ethanol polyphenol extract administration improved the tolerance to glucose in glucose induced hyperglycemic rats. Such treatment can be useful for correction of IR state or complex therapy of diabetes mellitus type 2. But future investigations are definitely required.

STUDY OF THE INFLUENCE OF THE GENISTA TINCTORIA ON THE FUNCTION OF THE THYROID GLAND

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Introduction. Diseases of the thyroid gland are an actual medical and social problem of modern society. This is due both to the wide, constantly growing prevalence of thyroid gland pathology, and to the resulting, with its dysfunction, damage to the somatic, reproductive, mental health of the population. The causes of thyroid diseases are plentiful - from iodine deficiency and adverse environmental conditions to