PHARMACOLOGICAL ACTIVITY OF BURDOCK THICK EXTRACTS ON THE MODEL OF BENIGN PROSTATIC HYPERPLASIA OF RATS

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Benign prostatic hyperplasia (BPH) is one of the most common diseases of middle-aged and old men. According to the literature, symptoms of BPH are shown in more than 40% of men 50 years aged and over 90% of cases in men over 80 years. In connection with this searching and creating efficient and secure prostate protective drugs, capable of simultaneously affecting on different pathogenetic chains of BPH, is important and urgent. Promising in the treatment of BPH is a herbal complex of biologically active substances which provide distinct therapeutic efficacy and safety.One promising plants with potential prostate protective properties is burdock.

The aim of the work was to study the influence of the thick root extract (TREB) and leaves (TELB) of burdock received at the Department of Botany of National pharmaceutical university, led by prof. Khvorost O.P., on the course of sulpiride-induced benign prostatic hyperplasia of rats.A model BPH reproduced by intraperitoneal introduction of sulpirid (eglonil, Sanofi-Aventis, France) at a dose of 40 mg / kg for 30 days. TREB and TELB at a dose of 75 mg / kg and the reference drug prostaplant forte at a dose of 35 mg / kg was administered intraperitoneally in clinical mode from 30 to 52 day experiment.At the 53 day euthanasia was made in animals and levels of estradiol, testosterone and dehydrotestosterone in the serum were assessed.In the serum of animals of the pathology control group was observed a reliable decrease in testosterone (2.8 times) and increase of dehydrotestosterone content (1.9 times) and of estradiol (1.7 times) compared with the relevant indicators in animals of the intact control group, that testimonies about the development of BPH.

The use of studied drugs contributed to the normalization of all biochemical markers of BPH.Thus, under the influence of TREB testosterone in blood serum increased by 2 times, under TELB - by 2.3 times compared with the rate in the control group pathology.Level of dehydrotestosterone in TREB group decreased by 1.7 times, the group TELB – by 1.9 times, levels of estradiol decreased by 1.7 times in both groups of animals. All figures were not significantly differerent from that of intact control and product comparison.

Thus, on the model of sulpiride-induced BPH in rats TREB and TELB enhance androgen production, the level of androgenic saturation and of value-estradiol and testosterone are promising prostate protectors.