2.2.4.1294-03, 2003). In the course of the study 60 subjects were treated by the new method, with Staphylococci recurrence rate being registered only in 2 cases (3%), without any allergic reactions or any other complications.

Conclusions. The method suggested for treating bacterial carrier states allows to exclude any pathogenic staphylococci in respiratory discharge in 97 % cases, as well as to prevent any possible complications in the subjects suspected to be bacterial carriers.

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RATS' BLOOD PROTEOLYTIC ENZYMES' ACTIVITY SEASONAL MANIFESTATIONS FEATURES

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There is much enough material integrating the data about the role of proteolysis. The majority of these publications has a biochemical pattern in general and gives no comprehensive idea of the proteolysis value in chrono-physiological processes.

The purpose of the present work has been the study of the blood proteolytic enzymes' activity seasonal dynamics.

White both sex non-pedigree rats weighing 200-270 g were used as the research objects. 3 sets of experiments with regularity of 10-15 days were carried out each season of the year. Every hour blood samplings were taken during the day using the decapitation method. In all the blood samples the level of general proteolytic activity of blood (GPA) and total protein amount of plasma were determined. The accumulation of free amino acids and peptides having NH_2-groups in the probes incubated within 4 hours at 37°C was considered to be the GPA level index. The findings were stated in mcg of glycin per 1 ml of plasma (or erythrocytes) for an hour of the incubation.

According to the research results the proteolytic blood system is the most active in the autumn-summer period of the year. The level of proteolytic activity of plasma enzymes in autumn makes 43,3±0,9-64,9±0,8 mcg Gly/ml/hour, in summer - 40,4±0,9-62,7±1,1 mcg Gly/ml/hour; the activity of erythrocyte proteases is 140,3±3,6-161,9±5,6 mcg Gly/ml/hour and 140,0±2,9-153,7±1,3 mcg Gly/ml/hour, accordingly. In winter and spring season the activity of proteolytic enzymes reduces considerably: in spring the level of plasma proteases makes 35,0±1,6-60,2±1,1 mcg Gly/ml/hour, in winter - 38,0±0,9-60,7±1,0 mcg Gly/ml/hour; the activity of erythrocyte proteases is 137,3±1,9-149,4±2,3 mcg Gly/ml/hour and 108,8±6-135,7±3,8 mcg Gly/ml/hour, accordingly. We have managed to determine a little difference in the dynamics of spring-winter manifestations of proteolysis activity in plasma and erythrocytes. In erythrocytes the proteolysis takes place more actively in spring, and in plasma – in winter.

The distribution of total protein amount indexes in blood plasma in different seasons of the year allowed determining the presence of the given parameter seasonal fluctuations. Thus, the total protein maximal level in plasma is registered in autumn and summer periods of the year: 73,4±3,8-95,3±4,3 g/l and 65,0±3,8-81,9±4,3 g/l, accordingly. A considerable protein reduction is registered in spring and winter periods: 51,03±0,4-73,4±1,1 g/l and 46,4±2,5-63,4±3,6 g/l, accordingly.

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CIRCADIAN DYNAMICS OF BLOOD PROTEOLYTIC ENZYMES' ACTIVITY IN RATS

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Thanks to present-day achievements of enzymology, proteolytic enzymes have become common use in medicine. Proteases play an extraordinary role in protein metabolism, klendusity (blood coagulation, clot lysis), immune responses, morphogenesis, cell-cell interactions, oncogenic transformation, virus pathogenicity, etc.

The purpose of the present work has become the study of the circadian dynamics of some physiological parameters of blood.

White both sex non-pedigree rats weighing 200-270 g were used as the research objects. Every hour blood samplings were taken during the day using the decapitation method. In all the blood samples the level of general proteolytic activity of blood (GPA), total protein concentration, the amount of erythrocytes, leucocytes, hemoglobine were determined, the plasma pH was measured. The accumulation of free amino acids and peptides having NH_2-groups in the probes incubated within 4 hours at 37°C was considered to be the GPA lev-