

sive more, dexters – reflexive in bigger extent. Sinisters preferred coping while dexters – defense in hard life situations. **Conclusions.** The work performed can help in human individualization study. Differential psychology and psychophysiology places important position among Sciences about Human Being nowadays in part in Pedagogics, Logopedy, Peditry, Biology and Chronobiology, Physiology and Pathophysiology, Psychology, Chronomedicine, Pharmacology.

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ERYTHROPOIESIS ASYMMETRY IN CATS

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Asymmetry is considered to be the common-biological law. It is realized at all known life organizational levels beginning from the molecular (proteins, aminoacids, DNA, mediators, enzymes asymmetry), cellular, organ (first of all - brain hemispheres, then lungs, skeletal muscles, kidneys, salivary glands, neuro-endocrine organs, and others) to organismic (Protozoas, Nematodas, Reptiles, Amphibias, Mammals, Human Being, some flowers et al.) one. But there are little data dealing with blood asymmetry (immunity, leucocyte particularly neutrophils, intact and activated platelets). Erythrocytes acquire the ability to have their asymmetrical shape during erythropoiesis. This phenomenon is tightly regulated by different substances (ATP, calcium, magnesium, hydrogen protons etc.). It has been proved erythrocyte membranes biochemical asymmetry existence. One can find little facts about velocity sedimentation rate, hemoglobin concentration, blood group agglutinogenes asymmetry. There exist some data about coagulation and tissular hemostasis asymmetry.

The aim of work was to determine whether erythropoiesis asymmetry is present or absent in cats. We performed following tasks: 1) estimate erythroblastic insulas quantity in bone marrow from right tibia; 2) to do the same from left tibia; 3) to compare the erythroblastic insulas amount on the right and on the left. We realized the analysis of erythropoietic activity of bone marrow received from the epiphyses of 10 right and 10 left tibias in 10 cats.

We took brain marrow from right and left tibia with a syringe filled with a physiological solution after which we made bone marrow smears with following staining by Pappenheim. The method represents a combination of the methods of May-Griunvald and Romanovsky-Gimza. Erythroblastic insulas amount was estimated in 10 squares by the standard squares method (Г.Авандилов, 1990).

As the visual analysis says, more active erythropoiesis was observed in a bone marrow from right tibia comparatively to the one from the left one. It is visible on more intensive staining of the preparation and the cellular elements bigger amount. For the received data proving we have performed their quantitative analysis which was in a counting of the erythroblastic insulas number (they are the erythropoiesis units) and their number comparison in the preparations taken on the right and on the left from the right and left tibias epiphyses. Bone marrow received from right tibias in the cats contained 1,46 times more erythroblastic insulas, thus, bone marrow erythropoietic activity was reliably higher on the right than on the left.

The erythropoiesis asymmetry is possible at least because there exists skeletal muscles functional and morphological asymmetry in the conditions of physical trainings or under resting conditions, there is a motor asymmetry in the animals in part cats.

Conclusion: the data received demonstrated erythropoiesis asymmetry in cats by erythroblastic insulas amounts in bone marrow taken from right and left tibias.