

ORCID: 0000-0002-3355-0741.

CORRECTION OF THE LEVEL OF SEX HORMONES IN THE POST-INTENSIVE CARE PERIOD (experimental study)

Karabaev Aminjon Gadaevich

DSc., Associate Professor, Head of the Department of Physiology
Samarkand State Medical University, Samarkand, Uzbekistan.

Mail: karabaev.aminion@bk.ru

A number of scientific studies are being conducted worldwide to improve the assessment of disorders and correction of the endocrine system under the influence of various extreme factors. [5; 8; 12; 13; 14]. Currently, the dynamics of changes in the content of reproductive steroid hormones and their correction in the body in post-intensive care conditions are not clear. At the same time, experimental studies have shown the dynamics of morphofunctional changes in the hypothalamic-pituitary system, as well as the post-resuscitation protective effect of estrogenic hormones, progesterone, and testosterone administered parenterally [1;2;18;9;10;15;16;17]. An analysis of the literature shows that studies of dysfunctions and correction of disorders of the endocrine system during post-intensive care disease, only some glands have been studied; that is, the hypothalamic-pituitary neurosecretory system, adrenal glands, thyroid gland, pancreas in the process of clinical death and post-intensive care disease have been partially studied [3; 5; 8]. However, the dynamics of changes in the morphofunctional nature of the synthesis and secretion of the male hormone testosterone have not been fully studied and remain an urgent problem.

The purpose of the study. To identify the reactivity of the male reproductive system in the early and long-term periods of the disease and their correction in the post-intensive care period.

The object of the study. In connection with the task, a study was conducted on 20 mongrel male rats weighing 160-170 g. Of these: 10 intact and 20 experimental rats, in which the reactivity of the reproductive system was studied after modeling post-resuscitation disease [7] and the content of FSH, LH and testosterone in the blood in the post-resuscitation period was studied without the addition of pumpkin seed seedlings and with the addition of a daily dose of 3 pumpkin seed seedlings within 1 month after revival.

Research methods. Experimental, morphological, and enzyme immunoassay methods were used to achieve the goal and solve the problem.

The results obtained and their discussion. In the study of the reactivity of the reproductive system in intact rats, the content of Follicle-stimulating hormone (FSH) was 0.13 ± 0.02 mIU/ml, Luteinizing hormone (LH) 0.43 ± 0.01 mIU/ml, testosterone content 5.04 ± 0.28 nmol/l, that is, they are in a normal relationship.

In the post-intensive care period, the dynamics of changes in the relationship between the content of FSH, LH and testosterone, as well as the dynamics of changes in the content of FSH, LH and testosterone after the use of pumpkin seed seedlings, the following changes were observed

In the early post-intensive care period, an increase in FSH content at 24 hours was 0.21 ± 0.01 mIU/ml. ($P < 0.01$) LH -0.61 ± 0.02 mIU/ml. ($P < 0.001$), and the amount of testosterone is -9.89 ± 0.71 nmol/l ($P < 0.01$) compared to intact animals. The animals became active and irritable. When feeding pumpkin seed seedlings in this period, the FSH values were 0.21 ± 0.01 mIU/ml, LH -0.62 ± 0.02 mIU/ml. testosterone levels of 9.96 ± 0.71 nmol/l did not differ from the data of intact rats and animal data on the 1st day of follow-up after resuscitation. If we interpret the data obtained with the data of P.D. Horizontov, that is, hormones responsible for the reproductive state are involved in the stage of adaptation, during the period of post-intensive care disease [4].

In the long-term periods of post-resuscitation disease, that is, 1 month after recovery in animals, a decrease in FSH content to 0.1 ± 0.01 mIU/ml was detected. ($P < 0.05$), LH up to 0.34 ± 0.02 mIU/ml. ($P < 0.01$), and testosterone up to 3.73 ± 0.17 nmol/l ($P < 0.05$) compared with data from intact animals and data from previous animal groups.

When feeding pumpkin seed seedlings for 1 month, an increase in the FSH content to 0.2 ± 0.02 mIU/ml was revealed. , LH up to 0.51 ± 0.03 mIU/ml. and testosterone up to 5.69 ± 0.27 nmol/l in the blood compared with the data of animals who underwent post-resuscitation diseases without correction ($P < 0.01$). At the same time, the indicators of FSH and LH were higher than in these intact animals ($P < 0.05$), and the testosterone content was within the normal range. ($p > 0.05$)

Based on the data obtained, the following conclusions can be drawn:

1. The reproductive system in intact rats is in a state of moderate functioning to ensure the synthesis and secretion of testosterone.

2. In the early post-intensive care period, 24 hours after recovery, an increase in the content of FSH, LH, testosterone was detected, and in the long-term periods of the disease, a decrease in the content was dropped after 1 month

FSH, LH, testosterone compared with data from intact animals.

3. After oral administration of pumpkin seed sprouts extract for 1 month, an increase in FSH, iLH and testosterone levels was revealed, compared with animals that underwent post-resuscitation diseases without correction.

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