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THE METABOLIC STATUS OF THE ORGANISM

It is known that at early stages of development of intoxication, caused by a technogenic factor, adaptation processes in general, help an organism to cope with chemical loading, however, in a consequence there can be the various conditions testifying to their inefficiency [1, 2]. Thus processes of a detoxication and biotransformation can be not always expedient, be accompanied short circuit of "vicious circles" in various metabolic links and lead to pathological manifestations.

The purpose of our researches was carrying out experimental toxic-hygienic modeling on laboratory animals, impacts of priority risk factors on development of metabolic violations at posterity.

One of preconditions of need of carrying out researches of influence on reproductive function of chemicals is their ability to have impact on the 2nd generation. For pairing used males and the females receiving a dust in a dose of 0,05 mg/m³ (at the level of maximum concentration limit). For pairing of females and males carried out concerning 2:1 at night. Existence of spermatozoa next day in vaginal dab considered in the first afternoon of pregnancy. During research determined the mass of a body of pregnant females.

Development of fruits: mass of fruits, average mass of a placenta. Decrease in average weight of a placenta is an indirect indicator of decrease in its barrier function, providing the reason of increase of embryonic mortality at skilled females. Cytochemical researches at posterity of 2 generations revealed in macrophages oppression to $0,48 \pm 0,12$ units. In comparison with control group $0,85 \pm 0,25$ units activity is reduced by 57%. The similar orientation for these indicators is characteristic also red marrow. Whereas the RNA level increases to $1,27 \pm 0,13$ in red marrow in comparison with control $1,13 \pm 0,16$.

The received results testify to tension mechanisms at 2 generations. Especially visually it was shown on activity of enzymes and synthesis the RNA defining immune reactivity at cellular level. It is possible to assume that sharp decrease in activity in marrow 2,3 times testifies to direct toxic action of MSP on enzyme since intracellular synthesis of enzyme doesn't happen. Decrease in activity will lead to accumulation in a cage of products that will affect its functional activity.

The most toxic radical increases twice, the maintenance of CD increases for 41%. The by-product the FLOOR HMM increases for 65%. The similar orientation is characteristic and for a catalase which activity increases to $0,92 \pm 0,02$ $\frac{1}{4}$ that is 1,3 times higher than control sizes. High activity of a catalase testifies to a high overdressing in POL/AOZ system. This phenomenon leads to increase of speed of oxidation of substrata, and it in turn - to strengthening of oxidability of lipids and other connections. High activity of a catalase constrains this process and it is possible to regard, as compensatory reaction. Intensity of metabolic processes reflects extent of violations in the struck sites in particular alveolar macrophages and neutrophils [3].

Results of research of a liver showed that activation the FLOOR goes at the expense of primary products of a recreation center and Cd. The greatest accumulation is observed from CD to $1,91 \pm 0,09$ that is 59% higher than control sizes. The maintenance of a recreation center increases for 29%. It is observed high activation of a catalase that is 63% higher than physiological sizes. At the same time, in serum of blood activation primary and by-products the FLOOR is observed. So, the HMM level increases twice that made $2,71 \pm 0,31$; catalase activation by 3,5 times is observed. The carried-out correlation analysis showed high dependence between HMM in the BALL and serum of blood (-0,73). Thus, at the rats who were born against chemical loading, changes at metabolic level with damage of a cellular link of protection that testifies to formation of "biochemical and structurally functional freight" that allowed to develop for the first time informative metabolic are noted and structural functional tests for a hygienic assessment.

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