SOME RESULTS OF CLINICAL AND IMMUNOLOGICAL EXAMINATIONS OF THE PATIENTS WITH DIOXIN ECOPATHOLOGY

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It is a well-known fact that dioxin intoxication is associated with marked damage to the membrane apparatus of cell taking part in immunologic response. From this point of view it would be very interesting to find out the main mechanisms of the development of immunodeficient status in case of dioxin ecopathology. We've met with this kind of ecologic problems in the city of Chapaevsk (Samara region, Russia). Here we'll analyze some results of clinico-immunologic examination of the workers of those plants in Chapaevsk where the concentration of dioxins in the air of the shops is considerably increased (together with the presence of other ecotoxicants). The control group includes healthy persons living in ecologically safe zone of Samara region.

In brief summary of the clinical status we should mention that 60 % of the workers who were in contact with ecotoxicants believed themselves to be healthy. But thorough clinical and labaratory examination revealed this or that form of liver disfunction that very often associated with chronic bronchial and lung diseases.

As for the analysis of the results of immunologic examination we shall evaluate here only the correlation among the main populations of lymphoid cells. Their relative quantities were valued by using routine methods: E-rossetteformation, M-rossetteformation and Sevka's hystochemical testing of the large granular lymphocytes (LGL) among lymphoid and monocyte cells in the blood. Thus we aimed at revealing the most uncommon correlation among the cells giving immunologic response.

The results showed that the most correct way of grouping the average arithmetic values is based on the relative quantities of *E-rossetteforming* cells (E-RFC). We have devided all the patients into three groups.

In the first group the values of E-RFC among lymphocytes and monocytes didn't differ from those in the control group and was from 48 to 71 %. These persons contained 84 % in the control group while in case of combine influens of ecotoxicants the above mentioned values were registered only in 13 % of all patients (i.e. in 42 persons). The relative quantity of M-RFC was markedly elevated: 23,4 ± 0,9 % (9,8 ± 0,7 % in control group), and the content of LGL was greatly reduced to 6,2 ± 0,3 % (15,0 ± 0,6 % in control group).

The second group was the most numerous among the persons who suffered the influence of ecotoxicants. It included 73 % of patients (5 % in control group). Unlike the first group ecopathology had marked clinical-laboratory signs here, and the content of E-RFC exceeded 71 %. The changes in relative quantities of M-RFC and LGL were just the same as it was in the first group (24,1 ± 0,7 % and 7,3 ± 0,5 % correspondingly).

The third group included 45 (14 %) patients with low per cent content of E-RFC. It approximately corresponded to the number of persons with the same data in control group (11 %). The changes in the values of M-RFC and LGL were typical for this kind of ecopathology, but if the content of LGL was 6,9 ± 0,8 %, then the content of M-RFC was certainly higher (31,0 ± 1,2 %) if comparing with the rest two groups.

All the changes also depended on the sex and age of the patients, it concerned especially the second group. Thus, men over 60 years demonstrated the increased value of E-RFC with the quantity of M-RFC elevating to 33,7 ± 0,3 % while the patients of 40-60 years showed only 17,0 ± 1,6 %. And the women of this group showed the lowest quantity of M-RFC (17,1 ± 0,5 %) at the age over 60 years, while maximum content was at the age of 20-40 years (27,6 ± 0,8 %). It showed be mentioned right here that this tendency remained even if there were no strict correlation between the age and durativa of the work at the plant. Low per cent content of LGL among lymphoid and monocyte blood cells remained the same regardless of the method of grouping the data.

While analizing the obtained results several facts should be mentioned. The direct examination of the relative quantity of cells took place only for LGL. And we obtained the most stable data concerning the level of these cells: double decrease of their per cent content in comparison with control group was registered. It should be mentioned that in all cases this value rarely was at about 11 % but never exceeded this level. Thus we were able to draw the conclusion that the decrease of the number of LGL in case of dioxin ecopathology is the most characteristic feature of this sta-