RESEARCH OF THE MODIFYING INFLUENCE OF CITRATE OF IRON ON LEAD ACETATE ON EMBRYOTOXICITY IN EXPERIMENTS

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Abstract: Lead intoxication leads to increased embryonic mortality, the occurrence of various developmental abnormalities of the skeleton and other organs and body systems. Search for bioantagonist possible new lead compounds - the problem important for physicians and biologists. Therefore, research modifying influence of certain trace elements toxicity of lead compounds in experimental models may allow face major public intoxication prevention of industrial regions. The aim of the study was to study the effect of lead acetate on embryogenesis separately and in combination with iron citrate to identify possible modifying action of iron on embryo toxic lead. The experiment was performed on white Wistar rats. In experimental models using iron citrate solution obtained by nanotechnology. As toxicants used lead acetate solution. simulation of pregnancy: 1st group - animals that were administered a solution of lead acetate at a dose of 0.05 mg / kg., group 2 - solution of lead acetate at a dose of 0.05 mg / kg and a solution of citrate of iron at a dose of 1.5 µg/kg (1 mcg/kg); group 3 - control. Experiment showing that the introduction of ultra-low doses of lead acetate resulted in significant embryotoxicity, which was reflected in significant reduction of viable fetuses by 17% and reducing the number of corpora lutea of pregnancy ovaries. In the group receiving the combination of lead acetate and citrate of iron appeared to improve embryonic development, which shows an increase in the number of corpora lutea in the ovaries of pregnancy and number of live embryos per 1 female. The above gives reason to believe that the introduction of a solution of citrate of iron on the background of lead intoxication prevents the negative influence of the latter on the reproductive system and the process of embryonic development of the fetus in rats under experimental conditions and indicates their bioantagonist. Thus, studies have shown that iron citrate, a modifying effect on the embryo toxicity of lead.

Keywords: Embryogenesis, lead acetate, citrate of iron, toxicity, bioantagonist.