BIOLOGICAL INFLUENCE AND EMBRYONAL TOXICITY OF LYMONIC ACID RENDERING TO RATS FEMALES OF F1 PROGENY

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It is known that citric acid is widely used in the food and pharmaceutical industry, medicine and veterinary medicine. The use of citric acid in feeding animals has a stimulating effect on metabolic processes and their reproductive capacity.

The studies used young F1 females and their F2 rat offspring with 0.8 mg / kg of citric acid in their growth and development, pregnancy and lactation. For the studying of embryological toxicity, the offsprings were obtained on the 21st day of pregnancy during the slaughter of 5 female control and experimental groups, and from 5 other animals - F2 rats were obtained. The dynamics of body mass changes of female F1 in the period of 37-117 days and their incidence during lactation were determined. The embryological toxicity of the administered dose of citric acid and the overall embryonic mortality rate were studied. It has been established that prolonged release of citric acid to females of rats F0 and F1 causes stimulating biological effect on body weight dynamics of young F1 females for 40 days after weaning within the range of 2.8 - 10.6%, with a decrease of this index by 3.9% for 57 days of life compared to the control group. The applied dose of citric acid showed an inhibitory effect on the reproductive capacity of young female F1 rats and the growth and development of embryos, which was characterized by a decrease in the number of live offsprings, their mass against a background of higher 16.2% of total embryonic mortality compared to control. The addition of citric acid contributed to a 24.7% increase in large-scale, which resulted in a higher growth energy of F2 rats during the entire subsistence period in the range of 13.1 - 31.3% than in the control animals.

Keywords: EMBRYONAL TOXICITY, LEMON ACID, LIVING MASS, FEMALES, RATS.