

THE INFLUENCE OF COOKED SAUSAGE WITH INULIN ON THE PHYSIOLOGICAL INDICATORS OF LABORATORY ANIMALS

Fedulova L.V.¹, Tunieva E.K.^{1*}, Nasonova V.V.¹, Kotenkova E.A.¹

ABSTRACT

Reducing fat content in meat products requires a complex of studies on the quality of sausage with fat substitutes and their impact on health. The article presents the study results concerning the effect of cooked sausage with inulin on the clinical and physiological parameters of laboratory animals. The experiment was performed for 26 days on 27 Wistar rats. The animals in the experimental group (Group 1) consumed cooked sausage with inulin. The control group (Group 2) was fed with cooked sausage with fat content of $20.5 \pm 2.1\%$. Animals in the intact group (Group 3) consumed a standard diet of vivarium consisting of pearl barley porridge and compound feed. Animals in Group 1 had a minimum weight gain for 26 days of 8.6% compared to Group 2 (10.5%) and intact animals (13.0%). Group 1 rats showed a more pronounced rise in glucose levels with increase in total bilirubin and urea, decrease in creatinine, and increase in aspartate aminotransferase and alanine aminotransferase levels as compared to blood serum of animals in Group 2. Based on a decrease in total protein with increased total bilirubin, urea and glucose in Group 1 animals, the assumption was made of accelerating the catabolism of proteins and carbohydrates by the introduction of cooked sausage with reduced caloric content into the diet. It was established that the introduction of experimental meat products into the diet allows to reduce the total cholesterol, triglycerides and low-density lipoproteins in the blood and increase the level of high-density lipoproteins and lipase.