

Pikhtirova A.V. The content of immunoglobulins in the blood serum of sows with different types of higher nervous activity

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Immunoglobulin – globular protein (Ig), which is produced by special cells of the body (B-lymphocytes) and participates in the formation of the immune response. In animals organism there are five classes of immunoglobulins: G, M, A, E, D. The main function of immunoglobulin or antibody is to maintain immunity, by identifying and disposing of foreign cells, viruses, microorganisms.

To determine the content of immunoglobulins in the blood serum of sows LLC "Ryabushkivskyy bacon" Lebedinsky district, Sumy region, we have formed four research groups of sows to 3 heads in each of the different types of higher nervous activity. The study was performed on sows of large white breed 2-4 lactation, body weight 190-210 kg. Type of higher nervous activity (HNA) sows were determined in terms of production using modified techniques of natural food reflexes within 5 days. In samples of blood serum were tested for antibodies using ELISA analyzer "Multyskan" in accordance with the attached instructions.

The results of the investigation found, that contents of different classes immunoglobulins in the blood serum of sows research groups was different. Thus, the content of immunoglobulin A was the highest in the serum of sows with a strong balanced mobile type of higher nervous activity ($1,84 \pm 0,05$ g/l). This index was lowest in serum of sows with strong unbalanced type of HNA – $1,02 \pm 0,02$ g/l, which is 1,80 times less ($p < 0,01$) than in animals with SBM type of HNA.

The level of immunoglobulin A in serum of sows the second and four study groups ranged from $1,13 \pm 0,01$ - $1,14 \pm 0,01$ g/l.

The highest levels of immunoglobulin G was in serum of sows with a strong balanced mobile type of HNA – 3,17 g/l, which is 1,89-7,26 % more than the index in the serum of animals with other types of higher nervous activity.

The results of the study found that levels of immunoglobulin M in serum of sows with SBM, SBI and SU types of HNA was at 0,63-0,65 g/l. This index was lowest in serum of sows with weak type of HNA, which is 14,29-16,92 % less, than in the first-third sows research groups.