HUMORAL FACTORS OF PROTECTION SEXUAL SYSTEM COWS DURING AFTER CALVING

Ya. S. Stravskyi¹, A. P. Panych², A. P. Fedorkiv¹

¹Ternopil Experimental Station of Institute of Veterinary Medicine of NAAS
12, Trolleybusna str., Ternopil, 46027, Ukraine

²State Scientific Research Control Institute of Veterinary Medicinal Products and Feed Additives,
11, Donetska str., Lviv, 79019, Ukraine

Postpartum endometritis is a major cause of female reproductive disorders. Increased knowledge on the pathogenesis of endometritis allows specialists of veterinary medicine effective measures for its prevention. In the article the dynamics of the content of immunoglobulin A, M, G in lochia and discharge from the uterus of cows in the postpartum period. The role of immunoglobulin M in the development of postpartum endometritis, and the formation of humoral immunity of the reproductive system of cows.

Secretory Ig A and Ig G that are produced locally, are the majority of antibodies produced in the body during the day. Except Ig A and Ig G the secrets of the reproductive tract contain Ig M.

Humoral specific immune factors protect the mucous membranes of the reproductive tract are antibodies. Humoral protection of mucosal surfaces of the genital tract are mainly enforced Ig A. Most of these antibodies is produced locally and only a small percentage gets into the mucous. In the lochia of cows predisposed to the development of acute postpartum endometritis, at 1-3 days after calving increased the level of immunoglobulin G in 1.3 times (p≤0.05), circulating immune complexes – 1.6 times (p≤0.01) compared to cows with physiological Platalea period.

In the same period in the secretions of cows increases the content of circulating immune complexes in 1.9 times (p≤0.01) compared to cows with physiological Platalea period. On the seventh day after calving in cows with acute postpartum endometritis in secretions appeared immunoglobulin M, along with this decreased level of immunoglobulin classes A and G in 1.7 times (p≤0.01), indicating the development of acute inflammation of the uterus.

Therefore, with the development of acute postpartum endometritis in cows on the 7th day after calving in the secretions of the cervix appear the main immunoglobulins immediate initial response, as a reaction to Antigone irritation
microorganisms. It should be noted that antibodies which contain immunoglobulins of class m, the high activity in reactions of antigen-antibody, as evidenced by the increase in the content of the CEC 1.9 times (p≤0.01).

**Keywords:** COWS, POSTPARTUM ENDOMETRITIS, LOCHIA, IMMUNOGLOBULINS.