THE ROLE OF EPITELIAL CELLS IN IMPLEMENTATION OF IMMUNE PROTECTION OF THE REPRODUCTIVE ANIMAL SYSTEM LOCAL IMMUNITY

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Immune system of reproductive organs of animals is represented by a number of cellular and humoral protection factors. Recently, the attention of scientists was attracted by the role of immunocompetent cells, which integrally provide immune homeostasis at all stages of the reproductive function. More and more information is being published about the role of epithelial cells that form the first evolutionarily created natural barrier. Some types of epitheliocytes at the same time are able to secrete a number of antimicrobials, as well as participate in the launch of the immune response through specific initiation of the reaction of phagocytic cells.

Our studies have found that in different stages of the sexual cycle in females and cats, along with cytological changes in epithelial cells, changes occur in phagocytic protection. In particular, in the post-infusion period there was an increase in the number of intermediate and basal epithelial cells on the surface of which were adhered to coccal and rod-shaped microorganisms. Along with epithelial cells, activated phagocytes were grouped. Neutrophils showed cytochemical reactivity in the NBT- test, and also formed NETs. At the same time, activated phagocytes absorbed microorganisms, and some epithelial cells formed specific cytoplasmic inclusions, which obviously also has an important role in the antimicrobial immunity of the mucosa. Some neutrophilic granulocytes were in a state of apoptosis.

Obviously neutrophil phagocytes take part not only in antimicrobial defense, but also provide maintenance of immune homeostasis. At present, antimicrobial reactivity of phagocytes under normal and pathological conditions and the participation of epithelial cells in the formation of local genital immunity are studied.