

Conclusions: According to the results of the study, it was found that silver nanoparticles exhibit a pronounced antibacterial effect on *Escherichia coli* bacterial cells, which is confirmed by atomic force microscopy. Silver nanoparticles can be recommended as the basis for the creation of veterinary drugs, as an active antibacterial environmentally friendly substance.

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MORPHOLOGY OF THE OVARIES IN RACCOON DOGS

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Raccoon dogs (*Nyctereutes procyonoides*) are omnivores that feed on insects, rodents, amphibians, birds, fish, reptiles, molluscs, carrion, and insectivores, as well as fruits, nuts, and berries.

The ovary is divided anatomically into the cortex and medulla. The cortical aspect of the ovary is covered by cuboidal epithelium during

development that converts to squamous epithelium with age. The cortical parenchyma is composed of follicles (oocytes and follicular cells), interstitial cells and collagenous connective tissue stroma. The ovarian medulla contains large arteries and veins, lymphatics, nerves embedded in a loose collagenous matrix. The rete ovarii are also present in the medulla.

In raccoon dogs the cortex contains the developing follicles. The ovaries are small almond shaped structures, covered by a thick connective tissue capsule - the tunica albuginea. It is covered by a simple squamous mesothelium called the germinal epithelium. The ovary has a cortex, where the ovarian follicles can be found, and a highly vascular medulla, with coiled arteries called helicine arteries.

The sequence of follicular development is: 1) primordial follicle; 2) primary follicle; 3) secondary follicle; 4) tertiary follicles.

Primordial follicles contain a primary oocyte and are surrounded by a single layer of flattened follicular cells.

Primary follicles still contain a primary oocyte but the follicular cells become more cuboidal and are now known as granulosa cells. Follicular (granulosa) cells proliferate (membrane granulosa) but are separated from the oocyte by a thick periodic acid Schiff (PAS) positive basement membrane called the zona pellucida. The organized stromal cells around the follicles are called theca cells.

Secondary follicles start to develop spaces between granulosa cells that coalesce to eventually form a large space called the follicular antrum. The granulosa cells secrete PAS positive material into these spaces. The stromal cells surrounding the follicle form two layers, the theca interna and the theca externa.

Graafian (tertiary, mature) follicles are large preovulatory follicles which bulge from the surface of the ovary. Once the follicular antrum is formed, the oocyte is surrounded by a remnant of granulosa cells called the cumulus oophorus. The cells of the cumulus oophorus immediately adjacent to the oocyte are known as the corona radiata.

The oocytes are surrounded by epithelial cells and form follicles. The ovary contains many primordial follicles, which are mostly found around the edges of the cortex. There are fewer follicles in different stages of development.

After ovulation, the ruptured follicle collapses and fills with a blood clot (corpus haemorrhagicum) which then forms the corpus luteum. The granulosa cells enlarge and become vesicular, and now are called the granulosa lutein cells. They become folded, as you can see here.

The spaces between the folds are filled with theca interna cells, which also enlarge and become glandular, and are now known as the theca lutein cells.

THE INFLUENCE OF ENDOTOXEMIA ON THE CHANGE OF HOMEOSTATIC PARAMETERS AFTER A SURGICAL TREATMENT OF GASTROINTESTINAL PATHOLOGIES IN HORSE

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Currently, gastrointestinal tract disease in horses is the most talked about in the world. On the average, 80% experience colic during life, and endotoxemia is accompanied in 40% of cases and is the main cause of euthanasia in this disease [2]. This study of the pathogenesis of endotoxic shock and the evaluation of some criteria for the parameters of homeostasis after surgical treatment of colic may serve as a future direction for improving and creating a treatment strategy for endotoxemia.

In this regard, the aim of our research was to study the pathogenesis of endotoxic shock and evaluate the change in the dynamics of homeostasis parameters after surgical treatment of colic horses.

The experimental part of the studies was carried out in the period from 2018. to 2019 in the Moscow region, on the basis of the veterinary clinic and equestrian center "New Century". The 1 control group consisted of 9 clinically healthy horses of equestrian center "New Century". The 2 experimental group included 9 horses with pathologies of the gastrointestinal tract, which underwent surgical treatment. All