Zhelavskyi Mykola

DVM, Dr in Veterinary, Professor, Head of department
Shunin Igor
Postgraduate
Zacharova Tatyana
PhD (in Veterinary), Docent

PhD (in Veterinary), Docent State Agrarian and Engineering University in Podilya Kamianets-Podilskyi, Ukraine

THE USE OF ALIZIN® IN THE COMLEX THERAPY OF CATS HAVING OPEN-FORM OF PYOMETRA

Pyometra is one of the most common reproductive pathologies of cats characterized by cystic endometrial hyperplasia, which occurs on the background of hormonal shifts and the development of the septic process [1, 2]. Cats of all breeds and age groups are susceptible to the disease [3, 4].

Diagnosis of the pyometra was based on anamnesis, clinical signs, serial laboratory (cytologic, microbiologic, hematologic, immunological and ultrasonographic studies (Mindray Z6 Vet) [5-7].

The treatment was based on the principle of complexity. Patients received injections of Aglepristone (Alizin® Virbac, France) at a dose of 10 mg / kg SC body weight, once a day (scheme 1, 2, 7, 14 days of treatment) in combination with the preparation of Mastometrin (Alexan LLC, Russia) at a dose of 0.5 ml/kg body weight, 2 times a day and an antibiotic Ammokocillin 15% (INVESA, Spain) at a dose of 15 mg/kg body weight at 48 hours intervals. Therapeutic efficacy was evaluated according to the clinical criteria of the physic status of animals, the results of laboratory and ultrasonographic studies [8, 9]. According to the statistics of veterinary reporting, it is found that in the Kamianets-Podilsky and Khmelnytskyi the pyometra is mostly found in cats at the age from 3 to 8 years. In the treatment history of 8 animals, the use of progestogen preparations was established. Signs of the disease manifested in the metestrus. In a detailed clinical study, it was found that in the of the pyometra in cats, the disease appeared with depression, anorasia, polydipsia, purified urine, increased abdominal pain, discharge from the vagina yellowish or greenish with a specific smell of mucous-purulent exudate. In animals, pathology was also manifested by vomiting and the development of subfebrile fever. In two patients, concomitant illness complicated by glomerulonephritis.

In micropreparations selected from the vaginal mucosa, an increase in the number of neutrophilic granulocytes was observed, most of them with signs of apoptosis. Changes in functional reactivity of phagocytic cells were noted (Zhelavskyi et al., 2017) [5, 7, 8]. Among the cellular elements, a significant number of coccus and sticky forms of microorganisms were detected. Microbiological studies in the exudate have identified the polymicrobial association (mainly in isolates dominated by pathogenic strains of *E. coli, Staphylococcus spp., Streptococcus spp., etc.*). An antibioticogram was determined in a specialized laboratory and the antibiotic susceptibility of isolated microflora to amococillin was established. Hematologic studies have shown decrease of hemoglobin content, signs of neutrophilic leukocytosis.

In an ultrasonographic study of patients with a pyometra, an increase in the body and

SECTION 5 Current issues of veterinary medicine

horns of the uterus, which was extended by accumulated fluid (anechoic visualization), thickening of the organ wall (mainly due to the endometrium) was found and a clear pattern of cystic endometrial hyperplasia of the was visualized.

The cat's pyometra is a polyoetiology of reproductive organs that occurs in animals of different age groups (from 3 to 8) and occurs as a result of a hormonal imbalance characterized by cystoid hyperplasia of the endometrium and the development of the inflammatory process involving the polymicrobial strains. The proposed scheme contributes to the restoration of the functional state of the uterus, the extinction of the pathological process and the normalization of the functions of all organs and systems.

References

- 1. Pratschke, K. (2015). Pyometra. Complic. in Small Animal Surgery, P. 517-521.
- 2. Silva, E., Leitão, S., & Henriques, S. (2010). Gene transcription of TLR2, TLR4, LPS ligands and prostaglandin synthesis enzymes are up-regulated in canine uteri with cystic endometrial hyperplasia—pyometra complex. *Journal of reproductive immunology*, 84(1), 66-74.
- 3. Davidson, J., & Black, D. (2015). Small Animal Pyometra. *Small Animal Surgical Emergencies*, P. 397-407.
- 4. Zhelavskyi, M.M., & Shunin, I. M. (2017). Clinical use of Aglepristone for treatment of open-cervix pyometra in cats. *Scientific Messenger of Lviv National University of Veterinary Medicine and Biotechnologies named after S.Z. Gzhytskyj*, vol. 19, no 79, 9-12.
- 5. Zhelavskyi, M.M. (2017). Ontogenetic features of the formation of local immune protection of the mammary gland of cows (literature review and original research). Scientific Messenger of Lviv National University of Veterinary Medicine and Biotechnologies named after S.Z. Gzhytskyj, vol. 19, no 79, 3-8.
- 6. Shah, M. A., Pande, N., Shah, I. A. (2016). Pre and Post-operative Haemato-Biochemical Changes in Pyometric Bitches. *Journal of Animal Research*, 6(5), 911-915.
- 7. Zhelavskyi, M.M., & Shunin, I.M. The status of extracellular antimicrobial potential of phagocytes genitals of cats. *Scientific Messenger of Lviv National University of Veterinary Medicine and Biotechnologies named after S.Z. Gzhytskyj*, 2017, vol. 19, no 73. P. 71-74.
- 8. Zhelavskyi, M.M., Shunin, I.M. The role of antimicrobial protection of phagocytes in the innate immunity of the reproductive organs of cats. *Abstracts book XVI International Semitic and Practical Conference of Professor, Researchers, Postgraduate Students, Students*" Actual Questions in Veterinary Medicine" Kyiv. NULESU. 2017. P.118-119.
- 9. Zhelavskyi, M.M. (2017). The status of phagocytic protection the mammary gland's secretion of cows during subclinical mastitis. *Abstracts book XVI International Semitic and Practical Conference of Professor, Researchers, Postgraduate Students, Students" Actual Questions in Veterinary Medicine* Kyiv. NULESU.

