

## EFFECTS OF IMIDOPYRAN AND PREDNISONE IN THE TREATMENT OF BABESIOSIS-ASSOCIATED ANEMIA IN DOGS

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Anemia is one of the most widespread animal diseases. It is not an exception for dogs in which the development of hemolytic anemia occurs against the background of babesiosis [1]. Studying the features of the development and treatment of hemolytic anemia in dogs is an urgent problem in veterinary laboratory practice [2]. At this stage, it is important to understand the specifics of treatment and their impact on improving the animal's condition and recovery.

*Aim.* To investigate the development and treatment with imidopyran and prednisolone of hemolytic anemia in dogs caused by the protozoan parasite *Babesia canis*.

*Methods.* 17 domestic dogs weighing 5–10 kg aged 2–5 years were used for the study. The parameters of the general blood analysis were determined using the MicroCC-20 Plus automated hematology analyzer (HTI, USA). Microscopy with a Leica DM4 electric microscope (Germany) was carried out to study the condition of erythrocytes, counting the number of leukocytes and platelets.

*Results.* The main indicator of the development of anemia in animals is the number of erythrocytes, hemoglobin, and hematocrit. Development of babesiosis lead to the hemolytic anemia investigated in dogs before treatment: the number of erythrocytes lower than normal by 20–30%, the level of hemoglobin 40–55%, the average concentration of hemoglobin in erythrocytes 10–18%, hematocrit 20–30% and the number of platelets 40–50%.

The main period of the treatment of babesiosis in dogs is the first 24 hours with imidopyran (Arterium, Ukraine, dose 7 mg/kg) and prednisone (Darnytsia, Ukraine, dose 2.2 mg/kg) with simultaneous use in the form of injections that improved all parameters of the general blood test. The number of erythrocytes increased from the previous results by 15–20% (Fig. A), the level of hemoglobin by 10–15%, the average concentration of hemoglobin in erythrocytes by 5–10%, hematocrit by 22% (Fig. B) and the number of platelets by 10–15%.

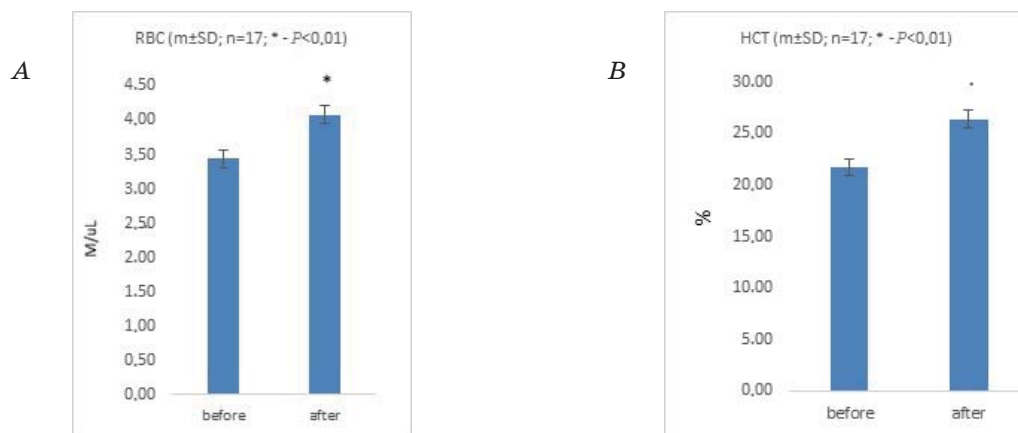


Figure. Values of erythrocytes (A) and hematocrit (B) in the dog's blood before and after treatment with imidopyran and prednisolone

**Conclusions.** The results of the study showed that treatment with imidopyran and prednisolone is effective in cases of babesiosis for dogs caused by the protozoan parasite *Babesia canis*. Moreover, such treatment decreases the risks of the anemic state development for these animals.

**Keywords:** canine anemia; hemorrhagic anemia; imidopyran; prednisone; babesiosis.

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