UMBELICEN - PROPHYLAXIS METHOD OF PARASITE IMMUNODEFICIENCY IN BOVINE

Oleg CHIHAI¹, Dumitru ERHAN¹, Ștefan RUSU¹, Nina TĂLĂMBUȚĂ², Maria ZAMORNEA¹, Galina MELNIC¹

¹Institute of Zoology of Academy of Sciences of Moldova, Chisinau, Republic of Moldova

²Free International University of Moldova

The aim of the investigation was the study of complex antiparasite treatment of poliparazitism for the prophylaxis of immunodeficiencies of parasitic order. The studies were accomplished on 4 lots of 10 adult bovine (4-6 years old) of Holstein race. The results of coprologic analysis revealed an invasion extensity by S. papillosus of 56% and invasion intensity (II) -2-16 larvae, Neoascaris vitulorum - 59% and II - 5-8 eggs, Eimeria spp. - 65% and II - 2-14 oocysts. The poliparazitism was established in 54% of the cases. The associated parasitism (S. papillosus, F. hepatica D. lanceatum, E. granulosus larvae, Eimeria spp.) provokes the nonspecific stimulation of null and Ts lymphocytes and suppress the policlonal proliferation of immuno-competent cells involved in immune cellular response, thus reducing the level of B, T and Th lymphocytes. The antiparasite chemotherapy (Amprolium, Albendazolum 2,5%, Tylosinum 200) due to its immunotoxic effect decreased the level of B, T and Th lymphocytes, and the toxins resulted after the degradation of

parasitic elements induced the quantitative increasing of null and Ts lymphocytes. Therefore, it aggravates the pathologic process, provokes immunodeficiencies with long period of convalescence and decreases the resistance of animals to repeated infections. The tissular therapy with the parasitic one (Umbilicenum, associated Amprolium, Albendazolum 2,5%, Tylosinum 200), induced the increasing of B, T and Th lymphocyte level on the basis of null and Ts lymphocytes. The convalescence period decreased by 10 days, while the period of repeated infection increased by 30 days. In conclusion it can be said that parasite factor in parallel with immunobiologic resistance of the host can be also aggravated by antiparasite medication, that often doesn't reach the expected result and the adverse reactions are more pronounced than disease symptoms. Antiparasite preparations possess immunodepressive activity, decrease the immunobiologic reactivity, the therapeutic efficiency, intensify the disease and considerably reduce the resistance to repeated contamination. Keywords: poliparasitism, treatment. chemotherapy, lymphocytes, immunity, convalescence.