Original article

Cytometric analysis of lymphocytes T and B in rabbits infected with non-haemagglutinogenic strains of RHD virus (rabbit haemorrhagic disease) – Rainham, Frankfurt and Asturias

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Abstract

The present paper refers to the cytometric analysis of lymphocytes T (with receptor CD5+), Th (with receptor CD4+), Tc/Ts (with receptor CD8+), lymphocytes CD25+ and lymphocytes B with receptor CD19+ in rabbits experimentally infected with strains of RHD virus – Rainham, Frankfurt and Asturias, not having haemagglutinogenic capacities, which makes them unique, as haemagglutinogenic capacity is a classic and typical property of most strains of this virus. The study was performed in the dynamic system, drawing blood samples from animals at hour 0, namely before the administration of the viral antigen, and then at 4, 8, 12, 24 and 36 h after the infection. The study indicated that Rainham and Asturias strains of RHD virus cause a similar amount of changes as the most immunogenic haemagglutinogenic strains CAMP V-561 and CAMP V-562 of the RHD virus do. In contrast, the Frankfurt strain of the RHD virus is characterised with 5-6-fold lower reactivity in this respect and is most similar to the least immunogenic haemagglutinogenic strain CAMP V-558 of the RHD virus.

Key words: RHD virus, non-haemagglutinogenic strains, T and B lymphocytes