

DETECTION OF ANTIBODIES TO ROTAVIRUS BY MEANS OF BLOCKING ENZYME LINKED IMMUNOSORBENT ASSAY

V. Mockeliūnienė, A. Šalomska, O. Akūnytė

Summary. Rotaviruses (RV) containing ribonucleic acid (RNA) are a frequent cause of enteritis in young animals. To estimate the spread of RV enteritis and postvaccinal immunity in animals the method of blocking enzyme-linked immunosorbent assay (ELISA) has been developed and tested. By the method of blocking ELISA antibodies against RV were identified in blood sera of different animals. Blood sera of 50 cattle, 32 pigs, 138 dogs and colostrum sera of 5 cows were examined. The titres of antibodies against RV in blood sera of pigs and cattle ranged within 1:40 and 1:640, i.e., all of them exceeded 1:10. However the average titres in cattle blood sera were higher than those in pigs ($7,7 \log_2$ and $6,9 \log_2$ respectively, $p < 0,05$). The investigations of dog blood sera showed that 69,9% of the sera tested had the titre of antibodies higher than 1:10 and were considered as positive. The titres of the antibodies in the blood sera of the investigated animals depended on the purity and concentration of the antigen used in the reaction. Therefore, to standardize the reaction it is essential to accomplish some supplementary investigations.

Keywords: rotaviruses, blocking ELISA.