

Epitopes of IgG immunoglobulins in studies on the catabolism of colostral antibodies in piglets

Summary

The aim of the study was to determine the course of catabolism of colostral antibodies in piglets using 15 antigenic markers of immunoglobulins. Epitopes IgH-A2, -B1, -B2, -C1, -X2, -Y1, -SI, -SII, -SIII, -SIV, -D2, -E2, -F1, -G1 and Ig(L/k)A1 were determined in blood serum collected from each of 53 piglets before first ingestion of colostrum, at 7 and 14 days of age, and at 1, 2, 3, 4 and 5 months of age. Individual antigenic markers were detected in an immunodiffusion test on agarose gel using specific alloantibodies. It was found that the catabolism of colostral IgG immunoglobulins in piglets may already begin at two weeks of age, and the antibodies studied completely disintegrate before 3-4 months of age in most offspring. There were considerable differences in the onset and dynamics of absorbed globulin degradation, both within and between litters.