ABSTRACT


The aim of this research is to study the present of antibody against E. coli in the sera of neonates calf which given colostrum and challenged by enterotoxigenic Escherichia coli (ETEC) K99. Eleven neonates calves were clinically healthy kept since birth until the age of one week. This neonates calves are divided into two groups, first group is colostrums group (8 calves) and the other is non-colostrum group (3 calves). Colostrum group were given colostrum on age 0-72 hours with 12 hours interval, whereas non-colostrum group are given cow milk at the same time. Each group were challenge by ETEC K99 5X10^{10} CFU emulsion it in alhydrogel peroral at 12 hours of age. Blood sample were taken from jugularis vein on age 0th, 12th, 24th, 48th, 72th, and 168th hours. The present of antibody in the sera detecting by indirect ELISA (Enzyme-Linked Immunosorbent Assay Method). The result showed of the highest concentration of antibody in the sera at 24 hours of age for colostrums group, whereas no antibody against E. coli were detected for non-colostrums group. Based on the results, we concluded the concentration of antibody in colostrum can detection at 24 hours until one week after given colostrum. The highest concentration of antibody anti-E. coli in 24 hours after given colostrum.

Keywords: colostrum, neonates calf, antibody anti-E. coli.