

IGG AND IGM LEVEL IN BLOOD SERUM FOR HEALTHY COWS IN CALF AND HEIFERS AND THE ONES WITH SUBCLINICAL MASTITIS

S. Japertas, E. Aniulis

Summary. The purpose of our investigation was to estimate changes of IgG and IgM immunoglobulin level in blood serum of dry cows and heifers in calf. We try to compare immunoglobulin level changes in healthy cattle and cattle with subclinical mastitis. We established the level of IgG and IgM immunoglobulin in blood serum by single radial immunodiffusion (Bovine SRID Kit-VMRD Products, USA). The investigation revealed immunoglobulin IgG was $1670 \pm 394,65$ mg/ dl in blood serum of healthy dry cows. Before calving it decreased to $1276 \pm 64,26$ mg/ dl ($0,05 < P < 0,5$). IgG quantity before first calving was lower of heifers which had subclinical mastitis than that of healthy cows and heifers ($P < 0,025$).

IgM quantity in blood serum of cows and heifers was $283,33 \pm 142,95$ mg/ dl - $216,67 \pm 35,12$ mg/ dl. Throughout research period IgM quantity was higher ($P < 0,1$) of first calving cows, which had subclinical mastitis during lactation.

Keywords: subclinical mastitis, immunoglobulin, somatic cells and proteins.