

THE EFFECT OF CALCIUM AND MAGNESIUM GEL GIVEN PER OS ON THE SOME BLOOD SERUM BIOCHEMICAL PARAMETERS OF PREGNANT COWS AND ON THE PREVENTION OF MILK FEVER

A.Cernauskas, G.Daunoras, A.Matusevicius, K.Lukauskas

Summary. The data about the effect of gel preparation Ewokal given per os on the quantitative changes of calcium and magnesium in blood serum and its availability for the prevention of milk fever are presented in the article. This preparation contains 8.3 % of calcium chloride, 0.55 % of magnesium chloride, 0.11 % sodium chloride and cobalt sulphate. The experimental cows (n = 5) 72 hours before calving and 12 hours after calving were given 500 ml of Ewokal preparation. The blood was sampled before the application, 7 hours after it, 5 hours after calving and 6 hours after the second application of the preparation. No preparation was given to the cows from control group, the blood was sampled in the same intervals. When preparation was given before calving the amount of calcium in blood serum increased from 2.18 ± 0.14 to 2.42 ± 0.09 mmol/l, after calving - from 2.01 ± 0.15 to 2.20 ± 0.16 mmol/l, the amount of magnesium before calving increased from 0.55 ± 0.07 to 0.69 ± 0.05 mmol/l, after calving - from 0.86 ± 0.20 to 0.88 ± 0.15 mmol/l. Differences among average values were not significant, $P > 0.05$. Administration of Ewokal before calving and after it had positive effect on normalization of the level of calcium and magnesium in blood serum. Especially obvious positive effect was determined when preparation was given after calving and at the beginning of lactation, when large amount of calcium and magnesium is lost with colostrum. Milk fever was not observed in this group, separation of fetal membranes was normal. In the cows of control group without application of preparation the level of calcium and magnesium decreased, in two cows fetal membranes were retained. It can be concluded that the right application of Ewokal is a good additional means for milk fever prevention after calving.

Keywords: peroral calcium preparation, amount of calcium and magnesium in blood serum, milk fever