THE IMPACT OF "ERGOGEN COMPLEX" ON MILK COMPOSITION AND UDDER MICROFLORA IN COWS

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Summary. The objective of this experiment was to evaluate the potential influence of pharmaceutical composition for the treatment of ketosis "Ergogen Complex" on milk composition and udder microflora in cows. Twenty eight cows, which at the beginning of a dry period were in good body condition were selected by stratified random sampling. In the first experiment the correlation between hydroxybutyrate level (HB) and milk composition, milk yield and microflora in fifteen cows 5 days postpartum was analysed. Statistical analysis performed by regression method had shown positive correlation between HB and milk fat, lactose and protein level. There was statistically significant influence of HB on the fat content of milk (49.0%, $P<0.05$) and udder microflora (16.2%, $P<0.05$). In the second experiment thirteen cows 5 days postpartum, were treated with 500 ml of "Ergogen Complex"(Group 1). Twenty control cows (Group 2) were treated with saline. In Group 2 fat content of milk (3.82 %) was lower compared to controls in Group 2 (3.96%). However, in Group 2 milk protein increased on 0.33% ($P<0.01$) and lactose on 1.23 % ($P<0.05$) compared to controls in Group 2. Milk yield was comparable in both groups.

Our study demonstrated that there was no correlation between milk microflora and milk composition. The treatment with "Ergogen Complex" had positive influence on udder microflora species. Before treatment coagulase-negative staphylococci were isolated in 79.9% and *S. dysgalactiae* in 21.1% of samples, and after treatment in 13.3% and 2.3% of samples, respectively. Concentration of HB was statistically correlated with fat content of milk. The results from this study indicate that pharmaceutical composition for the treatment of ketosis "Ergogen Complex" has a potential value to improve quality of milk in cows.

Key words: subclinical ketosis, milk composition, udder microflora, Ergogen Complex, cows.