

## THE EFFECT OF MEDICATION AGAINST MASTITIS ON THE QUANTITATIVE CHANGES OF MILK CONSTITUENTS

E. Aniulis, E. Pamakštienė, S. Japertas

**Summary.** Antibiotic in combination with anti-inflammatory drug therapy is a major component of subclinical mastitis control. In the present study we have analyzed the quantitative changes in milk constituents (fat, protein, lactose, somatic cell count [SCC] and total bacterial contamination) during the treatment with Synulox-CL, Mamexine, Mastimix and Lyncomycin- F. Subclinical mastitis lowered production of milk fat, protein and lactose, and increased SCC and microbial contamination. Triple application of Mastimix into the affected udder quarters increased milk fat (36 %,  $p < 0.001$ ), protein (22.4 %,  $p < 0.001$ ) and lactose (12.21 %,  $p > 0.1$ ) content, but lowered SCC (28.3 %,  $p > 0.2$ ) and bacterial content (55.7 %,  $p > 0.2$ ). Treatment with Lyncomycin increased milk fat (37.08 %,  $p < 0.001$ ), protein (8.26 %,  $p > 0.4$ ), lactose (0.8 %,  $p > 0.5$ ) content and reduced by 39.3 % ( $p < 0.025$ ) SCC and by 68.7 % ( $p < 0.001$ ) bacterial contamination. Treatment with Synulox-CL and Mamexine decreased milk fat ( $p > 0.1$ ) and lactose contents ( $p > 0.1$ ), but protein content was stable at the pre-treatment level. Somatic cell count decreased not significantly ( $p < 0.005$ ). Fourteen days following the treatment, SCC and bacterial contamination increased.

**Keywords:** mastitis, milk fat, protein, lactose, somatic cell count, bacterial contamination, treatment, Synulox-LC, Mamexine, Mastimix, Lyncomycin-F.