THE OCCURANCE OF MASTITIS PATHOGENS IN HUNGARIAN DAIRY HERDS

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Introduction: Since May 2008 several examinations were carried out in 29 Hungarian dairy farms to find the origins of their poor udder health status. In these examinations we identified the pathogens which were responsible for the high somatic cell count of the bulk tank and the high prevalence of clinical MASTITIS cases in these herds.

Objective: In this study we demonstrate the identified pathogens and their prevalence in the examined samples.

Material and methods: At first, we identified the cows with higher SCC than 400.000/ml. Before the milking, after the preparation of the teat, California MASTITIS Test were performed and in cases where the results were 2+ or 3+ milk samples were collected in an aseptic way. The milk samples were cooled and they were transported to the Microbiology Lab of the Dep. of Animal Hygiene where they were cultured. The identification based on morphology, the presence of hemolysis (α-, β-, γ-), catalase-test, ability of aesculin splitting, Gram staining and if necessary we used latex tests (Staphylase-test, Streptococcal Grouping Kit).

Results: During this period altogether 5789 milk samples were examined. In 1976 cases (23.13%) the samples were sterile, no bacterium did grow on the agar plates. In 1156 cases (19.97%) different kind of bacteriums grew on the agar plates which could be caused by contamination during the sampling procedure. From 738 samples (12.75%) Staphylococcus aureus were cultured, hence this bacterium was found in the highest number. In 378 cases (6.53%) Streptococcus uberis were cultured from the milk samples. In 343 samples (5.93%) coagulase-negative staphylococci (CNS) were found. In 250 cases (4.32%) the results was Escherichia coli. Streptococcus dysgalactiae was in 183 samples (3.16%). In 195 samples (3.37%) we identified different kind of Streptococci. Klebsiellas were in 168 samples (2.90%). In 130 cases (2.25%) we found Prototheca zopfi algae. In the rest of the samples there were proliferous fungi, aerobic sporogenous bacteriums, Corynebacterium spp., Enterococcus spp., Streptococcus agalactiae, Arcanobacterium spp., Pseudomonas spp. and Enterobacteriaceae spp.

Conclusions: S. aureus is the most common and most important MASTITIS pathogen in Hungary. Behind it comes Str. uberis as the most important environmental pathogen. In the last few months we found Prototheca zopfi more and more prevalent, probably it will cause big problems in Hungary in the near future.