

CHANGES IN THE MILK YIELD AND PH AND TEMPERATURE OF RETICULORUMEN AFTER OMENTOPEXY

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Abstract. The objective is to identify changes in the milk yield and pH and temperature of reticulorumen content after omentopexy.

The research was performed in a dairy farm with 550 cows on December 2014–January 2015. The sample consisted of 10 cows. The left-sided displacement of the abomasums was diagnosed in 5 of them, which was treated by lateral omentopexy according to Dirksen; the rest 5 were used for control. Additional treatment was not applied. A special bolus for measuring pH and temperature was administered to the reticulorumen of healthy cows and cows after the operation. The milk yield was registered with the help of herd management program Westfalia DP C21. Rectal temperature of all cows was measured. All data were recorded once a week for four weeks.

Statistically reliable difference in the milk yield ($p < 0.05$) between the research groups was observed during the entire research. The major difference was recorded on Week 1 after the treatment (29.18 kg/d); in Week 4, the difference was 13.97 kg/d. During the entire research, the reticulorumen pH of the Test group was lower than that of the Control group. Statistically reliable difference between the groups was identified on Week 1 ($p < 0.05$). During the period mentioned, the pH of the reticulorumen content of the Test group was lower by 0.42 than that of the Control group. In Week 3, the difference increased up to 0.84. In Weeks 1, 2, and 3, statistically reliable ($p < 0.05$) higher temperature was observed in the Test group. Major differences of temperature, 1.81 °C, were recorded in Week 1. In Week 4, the temperature of the reticulorumen in the Test group became equal to that of the Control group.

The first four weeks after omentopexy treatment showed the following results: statistically reliable difference in the milk yield remained most obvious in Week 1 after the treatment; cows with left-sided displacement of abomasums were exposed to greater risk of acidosis; they indicated lower pH of reticulorumen content; the first two weeks after omentopexy, reticulorumen content has increased temperature, especially obvious in Week 1.

Keywords: displacement of the abomasum, reticulorumen, omentopexy, milk yield