

EARLY DIAGNOSIS OF DISPLACEMENT OF THE ABOMASUM IN DAIRY CATTLE AND ASSESSMENT OF RECOVERY IN POST-OPERATIVE PERIOD

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Summary. The present study was designed to assess the effectiveness of the software AfiFarm™ (Israel) for diagnosis of displacement of the abomasum (DA) and to evaluate the post-operative physiologic condition in dairy cattle. In addition, physiological records e.g. dairy cows milk production, activity of animals, conductivity of milk, milking time, body mass were recorded.

It was estimated that 3 days before appearance of clinical symptoms of DA significant reduction of milk production occurred. In the case of left DA milk production decreased in average on 3.7 kg (16.6 %) and of right DA on 9.2 kg (43.3 %) compared to the controls, respectively. The DA also was reflected on the electrical conductivity of milk, which from 5 days after calving until the end of study in case of left DA was in average on 5.7 % (0.6 ms) higher compared to the cows with right DA. Three days before appearance of clinical symptoms of DA there was a significant decrease in the animals activity and live weight of cows. In the case of left and right DA the activity reduced in average on 15.9 % and on 22.9 %, live weight in average on 2.9 % and 5.9 %, milking time in average on 17.0 % and 12.8 %, respectively. After clinical symptoms of DA appeared milk production reduced in average on 14.8 kg (60.5 %) and live weight of cows in average on 42 kg (7.6 %). Furthermore, 25 days after DA surgery milk production in average increased on 12.1 kg (56 %), milking time on 1.2 min. (11%), cows activity increased on 52 steps/h (11%), live weight increased in average on 30 kg (6 %) ($P < 0.001$).

This experiment demonstrated that real time information gathered by the software AfiFarm™ has potential value to predict the diagnosis of DA at a very early stage according to the physiologic condition - milk production, activity, conductivity of milk, milking time and live weight of an entire herd and individual dairy cows.

Key words: abomasum displacement, physiological condition, animals activity, live weight, dairy cows.