

LINK BETWEEN SOLE ULCER AND SUBCLINICAL LAMINITIS

P. Mudroň
pavol.mudron@uvlf.sk

University of Veterinary Medicine and Pharmacy in Košice, Košice, Slovak Republic

Subclinical laminitis is a multifactorial syndrome with complex pathophysiology and significant economic impact on dairy industry. One of the effects it has on the welfare of cattle is that it predisposes to the development of other lesions on the foot, predominantly sole ulcers and white line disease. The aim of the study was to investigate if the subclinical laminitis actually predisposes dairy cows to the development of sole ulcer.

The data used in this study were obtained on 220 Holstein Friesian dairy cows during 2 sessions of routine orthopaedic and claw trimming visits (autumn 2016 and spring 2017) as well as within a period between them when lame cows were treated. All of the cows were kept on manure solid bedding and fed TMR. The average milk year yield was 9000 kg. At the first visit the cows with subclinical laminitis were identified (LS group). The occurrence of the sole ulcer was checked at the following visits in all the cows. Statistical analysis was performed by running a chi-squared test to test a difference between sole ulcer incidence in LS and control (healthy) group.

Out of the 220 dairy cows examined during autumn 2016 10 cows were affected by the subclinical laminitis (LS group; 4.55 %). 69 dairy cows were free of claw diseases (control group; 31.4 %). In the following orthopaedic controls the sole ulcer was detected in two cows from the LS group (20 %) and only in one cow in the control group (1.45 %). The difference in incidence of the sole ulcer between both groups was significant ($P < 0.05$).

The results of this study indicate that there is an association between subclinical laminitis and prevalence of sole ulcer in dairy cows. Therefore, a dairy farm management should pay more attention to avoid all known risk for subclinical laminitis development on the farm to prevent higher incidence of lameness.

Keywords: COWS, SOLE ULCER, SUBCLINICAL LAMINITIS