

The efficacy of ozone ointment therapy on pododermatitis of dairy cows.

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Abstract

30 dairy cows with pododermatitis were selected and treatment effect of ozone ointment for bovine pododermatitis was investigated. In addition, bactericidal effect of ozone ointment on etiological agent of bovine pododermatitis was evaluated. The pathohistological examination for the pododermatitis, according to application with ozone ointment was investigated. 30 dairy cows were divided two groups: control group (vaseline group: 15 cows), treatment group (ozone ointment group: 15 cows). Various parameters were evaluated in terms of the lameness score, swelling score, lesion score, WBC, neutrophil, pathohistological finding, and antimicrobial action. As compared with vaseline group, ozone ointment group revealed significant decrease of lameness ($p < 0.05$), swelling ($p < 0.01$) and lesion score ($p < 0.05$) were shown in hoof lesions on 14 days after application. In hematological findings, WBC count revealed slightly high values within normal range before treatment, however, this was improved on 14 days after application of ozone ointment. The number of neutrophils was slightly higher than that of normal, however, this was improved on 14 days after application of ozone ointment. In pathohistological findings, normal dermal tissue was found in tissues with pododermatitis on 14 days after application of ozone ointment. In antimicrobial action, marked decrease rate of bacteria was observed in feet of all cases treated with ozone ointment. The decreasing rate of bacteria in anaerobic culture was higher than that in aerobic culture.