

The efficacy of ozonated water therapy on pododermatitis of dairy cows.

Jin, Lee Soo; Cho Sung Whan; Jun-Moo Hyung; Kim Duck Hwan; Park Chang Sik; Han Hong Ryul & Kim Myung Cheol

Journal of Veterinary Clinics 23(3): 272-278, 2006.

ISSN: 1598-298X

Seoul, Korea Republic: Korean Society of Veterinary Clinics.

Abstract

This study was carried out to determine therapeutic the effect of ozonated water therapy on bovine pododermatitis. In addition, bactericidal effect of ozonated water on etiological agent of bovine pododermatitis was examined. The pathohistological examination for the pododermatitis, according to application with ozonated water and ozone ointment was investigated. Thirty healthy cattle were divided two groups (each of 15): control group (povidone group), treatment group (ozone solution group). Various parameters were evaluated in terms of the lameness score, swelling score, lesion score, WBC count, neutrophil count, pathohistological finding, and antimicrobial action. The decrease of lameness and lesion score were shown in hoof lesions on 14 days after application of ozonated water. Significant decrease of swelling was shown in hoof lesions on 14 days after application of ozonated water ($p < 0.01$). In hematological findings, WBC count revealed values within normal range. The number of neutrophils was slightly higher than that of normal, however, this was improved on 14 days after application of ozonated water. In pathohistological findings, recovery was rapid macroscopically and microscopically in the treatment with ozonated water on the hoof lesions and ozonated water was effective. In antimicrobial action, bactericidal effect was observed in treatment with ozonated water on the hoof lesions and ozonated water was effective.