

## OZONE TREATMENT IN CLAW DISORDERS OF DAIRY COWS

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**Introduction:** Claw disorders cause great economic losses by reduced milk yield and weight loss.

**Objective:** This study was performed to determine the effect of ozone therapy on claw disorders of dairy cows.

**Materials and methods:** Thirty dairy cows with claw disorders were selected and were divided two groups : control group(vaseline group : 15 cows), treatment group(ozone ointment group : 15 cows). Treatment effect of ozone ointment for claw disorders was investigated. Also, bactericidal effect of ozone ointment on etiological agent of claw disorders was evaluated. The pathohistological examination for the claw disorders was investigated.

**Results and discussion:** 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 antimicrobial action, ozone ointment group all together revealed significant decrease rate in aerobic and anaerobic bacteria, as compared with vaseline group ( $P < 0.001$ ). However, the decreasing rate of bacteria in anaerobic culture was higher than that in aerobic culture ( $P < 0.001$ ). In pathohistological findings, normal dermal tissue was found in tissues with claw disorders on 14 days after application of ozone ointment.

**Conclusions:** It was concluded that the application of ozone ointment has a useful treatment effect and revealed effective antimicrobial action.

**Keywords:** Ozone, antimicrobial action, cow, claw disorders