



KEY WORDS

- ✓ Calf
- ✓ Enzootic pneumonia
- ✓ TNF – α
- ✓ CRP
- ✓ SAA

CONTACT

E-MAIL:
ertunc.seviye@gmail.com

THESIS SUPERVISOR

TELEPHONE:
(+90 224) 294 08 10

E-MAIL:
sezsen@uludag.edu.tr



CORRELATION OF TNF ALFA, CRP AND SAA LEVELS WITH CLINICAL FINDINGS, EVALUATION OF EFFECTIVENESS ON PROGNOSIS AND TREATMENT IN CALVES WITH ENZOOTIC PNEUMONIA

SEVIYE ERTUNÇ

0000-0003-0212-4560

BURSA ULUDAĞ UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
INTERNAL MEDICINE DEPARTMENT
PhD PROGRAM

GRADUATION DATE:05.07.2023

SUPERVISOR

PROF. DR. SEZGİN ŞENTÜRK
0000-0002-2465-9913
BURSA ULUDAĞ UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
INTERNAL MEDICINE DEPARTMENT
BURSA – TÜRKİYE



THESIS ABSTRACT

A total of 30 Holstein calves aged 2-6 months were used in the study and were divided into 3 groups (control, mild/moderate, severe) according to the Wisconsin Calf Respiratory Scoring Table. On day 0, respiratory scoring and general examination of all groups were performed and blood, transtracheal aspirate and deep nasal swap samples were collected. Hemogram, bacteriological culture, virological antigen, TNF- α , CRP and SAA (serum and transtracheal aspirate) were examined. On the 7th day, only respiratory scoring and general examination of the patient groups were performed and TNF- α , CRP, SAA (serum and transtracheal aspirate) were measured. The mild/moderate and severe groups were administered marbofloxacin (8 mg/kg, sc; 2 doses 72 hours apart) and meloxicam (0.5 mg/kg, sc; single dose) on day 0. In the study, it was observed that the respiratory and examination findings of the severe group increased compared to the mild/moderate and control groups. Various bacteriological agents and viral agents were found in deep nasal swap and transtracheal aspirate. In the complete blood count, it was observed that the leukocytes, monocytes, neutrophils, erythrocytes and thrombocyte counts were high in the patient groups. There was no statistical difference between the groups in TNF- α , CRP and SAA measured from blood on day 0 and 7, and TNF- α and CRP measured in transtracheal aspirate. In addition, an increase in SAA in the transtracheal aspirate of the severe group was observed on day 0 ($p<0.05$). On the 7th day, there was a statistical difference in SAA of the severe and mild/moderate groups ($p<0.05$). The difference between the 0th and 7th day of SAA in the severe group was significant ($p<0.05$).

As a result, it was observed that there was a correlation between the SAA, which was examined only from the transtracheal sample, and clinical findings in calves with enzootic pneumonia, and it was effective on prognosis and treatment.

APPLICATION AREAS OF THE THESIS RESULTS

Calf unit
Prognosis
Treatment

ACADEMIC ACTIVITIES