



KEY WORDS

- ✓ Heifers
- ✓ AMH
- ✓ Acute Septic Metritis
- ✓ Acute Phase Proteins
- ✓ Cytokines

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EVALUATION OF THE RELATIONSHIPS BETWEEN LEVELS OF SERUM ANTI MÜLLERIAN HORMON (AMH), SERUM LACTATE, ACUTE PHASE PROTEİNS, PRO/ANTI-INFLAMMATORY CYTOKİNES LEVELS WITH DEVELOPMENT OF ACUTE SEPTIC METRİTİS İN HOLSTEİN DAİRY HEİFERS

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THESIS ABSTRACT

The aim of this study was to determine whether there is a relationship between blood serum levels of AMH, lactate, acute phase proteins, pro/anti inflammatory cytokines and acute septic metritis formation in Holstein heifers. In addition, to investigate whether these parameters can be used as early screening biomarkers in the early detection of ASM. In the postpartum period, animals with Group ASM and healthy Group K were identified and serum samples collected. As a result of biochemical analyses, it was determined that AMH values of Group ASM were lower than Group K.

In W-8, blood serum IL-6 and SAA, In W-4, IL-6, IL-10, TNF-a and SAA and at the time of diagnosis, IL-6, IL-8, IL-10, TNF-a, SAA and Hp levels were significantly higher in Group ASM.

APPLICATION AREAS OF THE THESIS RESULTS

Animals that will develop metritis can be determined in advance by measuring IL-6 and SAA values at the 8th week before birth, and IL-6, IL-10, TNF-a and SAA values at the 4th week before birth.

AMH levels of animals suffering from acute septic metritis were found to be lower than healthy controls. When selecting female breeding animals, the possibility of contracting metritis can be predicted with a one-time AMH measurement from 11–13-month-old heifers.

ACADEMIC ACTIVITIES

1. Avcilar, T., Koca, D., Nak, Y., Şahin, M. E., Özyiğit, M. Ö., & Nak, D. (2023). Investigation of relationships between serum lactate, acute phase proteins, pro/ antiinflammatory cytokine levels, and metritis formation in Holstein dairy heifers. Turkish Journal of Veterinary and Animal Sciences, 47(3), 176–184. <https://doi.org/10.55730/1300-0128.4284>.