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Effect of the conjunctival brucella vaccine on some biochemical parameters in sheep

Gulay Ciftci, Ozkan Yigit and **Alper Ciftci**
Ondokuz Mayis University, Turkey

Statement of the Problem: In this study, the investigation of the levels of some biochemical parameters in the blood of sheep due to the vaccination for the prevention of brucellosis was aimed.

Methodology & Theoretical Orientation: 35 months-old and female sheep were used as an animal material. The vaccine was given in single dose against Brucella melitensis and every month blood was drawned from Vena jugularis for 4 months. The vaccine, vaccinated 1 dose via conjunctiva, contains Brucella melitensis Rev1 (0.5-2×109 cfu). Some biochemical parameters in sheep such as ALP, ALT, AST, LDH, glucose, total protein and albumin measured using autoanalyzer.

Findings: In consequence of evaluation of the Rose Bengal Plate agglutination tests, the sera belonging to bloods taken before vaccination were negative and 120 serums belonging to experimental group showed a positive reaction. The SAT results of the serums which were evaluated after RBPT showed that antibody titers ($P<0.001$) increased significantly at first month according to the pre-vaccine, but it was determined that while from the second month began to fall. It was determined that there was no statistically significant changes in glucose, AST, ALT activity after vaccination ($P>0.005$), a significant amount of total protein and ALP decreased after vaccination ($P<0.005$), while the LDH levels were significantly increased ($P<0.005$).

Conclusion & Significance: It was determined that in first month of increased antibody of conjunctival Brucella vaccine which was carried out in low doses to protect against Brucellosis affected the amount of LDH, ALP, total protein and albumin in subsequent months, it was approaching the level of the pre-vaccine group and conjunctival Brucella vaccine was considered to be used as a safe house to protect them from Brucellosis.

Biography

Alper Ciftci is an expert about Molecular Microbiology and Vaccine Development. He finished his PhD at Ankara University, and now he works as Associate Professor at Ondokuz Mayis University, Samsun, Turkey. He focuses on working development and validation of commercial products such as vaccine and diagnostic kits.

aciftci@omu.edu.tr

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