

**College: College of Veterinary**

**Name of Student: Faraj A. Abed**

**Dep.: internal and prevent medicine**

**Name of Supervisor: Professor Dr. Kamal M. Alsaad**

**Certificate: Master**

**Specialization: internal and prevent medicine**

**Title of Thesis:**

**Clinical, Hematological, and Diagnostic Studies of Hemomycoplasma Infection (*Mycoplasma ovis*) in Sheep of Basrah Governorate**

**Abstract**

Hemomycoplasmosis caused by *Mycoplasma ovis* were diagnosed in sheep of Basrah Governorate. The study were conducted on (833) local sheep breeds (represents sixteen farms) reared naturally in different areas of Basrah governorate, Animals are of different ages and of both sexes. Two hundred and twenty five (225) local sheep breeds showed different clinical signs of high body temperature, tachycardia, difficult respiration, anorexia, and anemia. Twenty five (25) clinically healthy local sheep were considered as controls. Complete clinical examination had been applied to all suspected animals and standard coprological laboratory examinations were done for parasitic load. Results show that clinically infected sheep show signs of anorexia, anemia with pale and / or icteric mucous membranes specially of eyes and vagina, rapid and difficult respiration, enlargement of superficial lymph nodes specially prescapular lymph node, rough wool coat of disease animals, hemoglobinuria with passing of dark color urine, Moreover, milk production were decreased in lactating ewes. On clinical examinations statistically significant increase ( $p>0.05$ ) were indicated in body temperature, respiratory and heart rate of diseased sheep and in controls. Diagnosis of *Mycoplasma ovis* was leaned on examination of stained blood smears with Giemsa, as the organism appears as small coccoid or rod shape structures and it could be found as a singular or in chains on the cell membranes of infected erythrocytes of diseased animals. Furthermore the diagnosis was confirmed by indirect Elisa test. Results of hematological examinations show significant decrease ( $p>0.05$ ) in the values of total erythrocytes count, hemoglobin concentration and packed cell volume indicating macrocytic normochromic type of anemia, however, the rate of erythrocyte sedimentation of red blood cells indicate significant increase ( $p>0.05$ ) in diseased sheep. Moreover, Leucocytosis due to significant increase ( $p>0.05$ ) in lymphocytes number were also registered in infected sheep then in controls. In addition, the evaluation of acute phase response show significant decrease ( $p>0.05$ ) in the values of haptoglobin and fibrinogen time in diseased sheep compared with controls. the results also show a significant difference in different biochemical tests were encountered between infected sheep with *Mycoplasma ovis* and controls, since the significant decrease is ( $p>0.05$ ) in the values of total protein. However, the values of total and indirect bilirubine, GGT, AST, ALP, and BUN were significantly increased ( $p>0.05$ ) in diseased sheep compared with controls.