

# Immunization of Broiler with Dead Sporozoites as Vaccine Against *Eimeria tenella* Parasite

Suhair R. Al-Idreesi, Mahmoud Kweider and Mahmad M. Katranji

Department of Animal Biology, Faculty of Sciences, Damascus University, Syria 1 Faculty of Veterinary Medicine, Al-Baath University, Syria

### Abstract :

Chickens were protected against coccidiosis induced by *Eimeria tenella* by using 125, 000 dead sporozoites that were injected in neck subcutaneously with two doses at 3rd and 16th days of age. Efficacy of this vaccine was estimated after challenge by determination some parameters like protection rate which was around 96.1-96%. Number of oocysts and cecal lesion score from the chickens in the immunized groups were decreased significantly ( $p < 0.05 < 0.01$ ). This vaccine was not effected change on the body weight gain. Also, the immunized groups were higher body weight gain as compare with control groups after challenge. The Anti coccidial index measurement revealed the effectiveness of vaccine considerably. The immunogenicity of vaccine was studied by using SDS-PAGE and Western blot. 7 polypeptides had been estimated more immunogenic after probed with chickens serum at 39 days of age, their molecular weight are (12.3, 13.68, 18.7, 39, 59.5 and 77.3) KD. The results were obtained the feasibility of immunizing Broiler against *E. tenella* infection by using dead sporozoites as a vaccine.

### Key Word :

Vaccine, sporozoite, *Eimeria tenella* , western blot

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