# **Titre d’article**: *A vaccination trial with a precocious line of Eimeria magna in Algerian local rabbits Oryctolagus cuniculus*

**Abstract :**

Coccidiosis is a major health problem in rabbits. A vaccine using Eimeria with perfect safety and effectiveness seems to be necessary to face this parasitosis. To assess the safety and the efficacy of a vaccine based on the Algerian precocious line of Eimeria magna against rabbit coccidiosis, twenty eight young rabbits from six litters of Coccidia free females were used to monitor oocystal excretion and body weights, they were distributed into four groups (vaccinated-challenged group, double challenged non vaccinated group, simple challenged non vaccinated group and control group). Three other Coccidia free rabbits served for the necropsy in order to compare the effect of the wild and the precocious strains of Eimeria magna at the histological level. Following the challenge inoculation, a statistically significant decrease of about 97% in the oocyst excretion was noticed in the vaccinated rabbits as a sign of a good immune response acquired by the vaccination associated to a good growth rate. Moreover, a statistically significant increase in oocyst output following the challenge in both double challenged non vaccinated group and simple challenged non vaccinated one was noticed: (1.2 × 108 and 1.5 × 108 vs 4.6 × 106 oocysts/rabbit respectively). Taking the control group showing a steady growth as a reference, the vaccinated rabbits showed a good growth during the experiment (p < 0.05). Globally the challenged groups showed a normal growth compared with the control group except for a temporary decrease in weights. No case of diarrhea was recorded in the vaccinated – challenged group and the control one (neither vaccinated nor challenged) whereas more than 50% of the young rabbits from both simple and double challenged – non vaccinated groups presented diarrhea. Consequently, the Algerian precocious strain of Eimeria magna constitute a good candidate for anticoccidian vaccine in the future.