# **Titre d’article**: Equine piroplasmosis in northern Algeria: Haematological and serological parameters

**Abstract :**

Equine piroplasmosis is an acute, subacute or chronic tick-borne disease due to Babesia caballi and/ or Theileria equi, affecting Equidae and causing economic losses to horse breeders and poor performances during tournaments. The objectives were fourfold: first to determine the seroprevalence of piroplasmosis in horses via cELISA, second to establish the haematological profile of piroplasmosis in horses of different Algerian areas through optical microscopy, third to identify the risk factors associated with the infection, and forth to try to elucidate any eventual correlation between piroplasmosis and anaemia. The study was carried out in different regions of northern Algeria. A total of 182 horses of both sexes were blood tested to estimate the prevalence of Theileria equi and Babesia caballi via competitive ELISA and to examine microscopically thin stained blood smears looking for haematological alterations using a standard cell counter. Parasites were detected in 42.9% of horses after microscopic examination of thin blood smears. The seroprevalence of equine piroplasmosis infection using competitive ELISA was 39% and 1,1% for Theileria equi and Babesia caballi respectively. Therefore, equine piroplasmosis is present in different regions of Algeria with a predominance of positivity in the central region (54,5%). Season (winter), region (central) and intended activity are the risk factors significantly associated with the prevalence of the disease. Anaemia was observed in 34,61% of individuals but there was no significant differences between positive and negative populations. Piroplasmosis is endemic in Algeria. Measures such as limiting horses’ mobility should be taken to reduce/prevent dissemination.