# **Titre d’article**: Seroprevalence of and associated risk factors for Leptospira interrogans serovar Hardjo infection of cattle in Setif, Algeria

**Abstract :**

Background: Leptospirosis is a cosmopolitan zoonosis caused by Leptospira interrogans responsible for heavy loss both economically and in health, in humans and animals. This study was conducted to determine the seroprevalence and risk factors associated with Leptospira interrogans serovar Hardjo infection in cattle in the state of Setif, northeastern Algeria. Methodology: Between the period 2015 and 2019, a total of 48 randomly selected herds of cattle were investigated, and 406 sera from apparently healthy cattle were analyzed using an indirect enzyme-linked immuno-sorbent assay (ELISA). In order to determine possible risk factors related to leptospirosis, a pre-validated questionnaire was administered to herd owners. Results: The herd prevalence of Leptospira interrogans serovar Hardjo was 31.25% (15/48, 95% CI 19.95– 45.33) while the cattle prevalence was 5.42% (22/406, 95% CI 3.61–8.07). Multivariable logistic regression analysis showed that the age of cattle between 3 and 6 years (OR = 9.25; p< 0.03), breeding herd size > 20 cows (OR = 13.65; p< 0.01), and semi-intensive management system (OR = 0.21; p< 0,02) were significantly associated with seropositivity to Leptospira interrogans serovar Hardjo. Conclusion: We concluded from this study that Leptospira interrogans serovar Hardjo is circulating among cattle farms in the state of Setif, Algeria. Furthermore, we recommend more studies to be carried out to prove the infectivity and implementation good hygienic practices among cattle farms and people at risk.