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SEROLOGICAL SURVEY OF CCHFV IN CATTLE IN 10 REGIONS OF ALBANIA

ARTA LUGAJ[1], MARC MERTENS[2], MARTIN H. GROSCHUP[3] & KRISTAQ BËRXHOLI[4]

[1] Department of Biology, "Ismail Qemali" University of Vlora, Albania

[2,3] Friedrich-Loeffler-Institute Greifswald Germany

[4] Department of Veterinary Public Health, Agricultural University of Tirana, Tirana, Albania

ABSTRACT

Crimean-Congo hemorrhagic fever (CCHF) is a zoonotic vector-born viral disease with a case fatality rate of 2-50% in human. CCHFV is classified within the *Nairovirus* genus in the *Bunyaviridae* family. Its causative agent is a negative-sense, single-stranded (ss) RNA genome containing S (small), M (medium), and L (large) segments which encode for the nucleocapsid protein (NP), the envelope glycoproteins G1 and G2 and RNA-dependent RNA-polymerase, respectively. The virus can be transmitted mainly through direct contact with blood or tissues from infected livestock or through bites of *Hyalomma* ticks. The present survey was carried out using samples collected in 2013. The aim of this study was to examine the distribution of CCHFV among cattle in 10 regions of Albania (Has, Kavaje, Kukes, Berat, Kolonje, Pogradec, Rreshen, Korce (Bulgarec/Qatrom) and Gjirokastra). The samples were tested with an immunological method using indirect ELISA at Friedrich-Loeffler-Institut (FLI), Greifswald Germany. Through this technique it was possible to identify in 16 out of 337 serum samples from cattle CCHFV-specific IgG antibodies. These results demonstrate the presence of CCHFV in livestock and therewith the presence of CCHFV in Albania.

KEYWORDS: CCHFV, (ss) RNA, Nairovirus, Bunyaviridae, Indirect ELISA, IgG