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Seroprevalence of West Nile Virus in Vultures in the Centre region of Portugal

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West Nile Virus (WNV) is a vector-borne pathogen with zoonotic potential widely spread throughout the world. The transmission cycle is maintained by mosquitoes (mainly *Culex* spp.) and wild birds. Humans, equines and other mammals are incidental hosts, which are unable to amplify the agent in their blood circulation.

Two lineages have been identified as disease-causing in humans and other animals: WNV-1 and WNV-2, being the latter more common in Europe.

Symptoms in humans from WNV are mainly neurological, which can include severe encephalitis and death. Nevertheless, most of the infections are subclinical, and the true occurrence of the disease remains highly underestimated in Portugal.

We aim to contribute to study the seroprevalence of WNV in wild birds in Portugal. In this work we present the seroprevalence of antibodies to WNV in 27 vultures which were admitted at a wildlife recovery centre in the Centre region of Portugal (CERAS). Collected serum samples were from 2 different species, the Eurasian griffon vulture (*Gyps fulvus*) and the cinereous vulture (*Aegypius monachus*). A commercial enzyme-linked immunosorbent assay (ELISA) was performed and results have shown a high prevalence of seropositivity to WNV (n=14, 51.9%; 95% CI: 33.9-69.3%).

Occurrence of WNV antibodies was high in this study. This is a preliminary investigation that will be continued in other geographical areas and with a larger sample size.

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