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First outbreak of emerging ha-MYXV-associated myxomatosis in European hare (Lepus europaeus) in Austria

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In the spring of 2025, an unusually high number of dead European hares (Lepus europaeus) were found in a region northeast of Vienna, Austria. Pathological and histological examinations revealed typical swellings around the eyes, nose and genital tract with epithelial viral inclusions, consistent with a poxvirus infection. PCR analysis and cytopathic effects on RK13 cells confirmed the presence of the Myxoma virus, and sequencing of the M009L gene region identified the characteristic 2.8 kb insertion associated with the highly pathogenic ha-MYXV strain.

Myxomatosis is a severe disease primarily affecting wild and domestic rabbits (Oryctolagus cuniculus). Originally introduced to Europe in the 1950s, the virus has since become endemic in many countries, with variants of differing pathogenicity emerging over time. However, these variants have historically posed little threat to hares.

In 2018, the recombinant ha-MYXV strain emerged on the Iberian Peninsula, causing significant declines in Iberian hare (Lepus granatensis) populations.

This report marks the first documented outbreak of ha-MYXV-associated myxomatosis in European hares in Austria. Genome sequencing and epidemiological analyses are currently being carried out to better understand the evolution and spread of this emerging pathogen. Given the potential impact of myxomatosis, along with other infectious diseases, continuous monitoring of European hare populations is essential to mitigate future threats.

Keywords

Myxoma virus; European hare; ha-MYXV

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