

Abstract

Common Occurrence of Belerina Virus, a Novel Paramyxovirus Found in Belgian Hedgehogs [†]

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[†] Presented at Viruses 2020—Novel Concepts in Virology, Barcelona, Spain, 5–7 February 2020.

Published: 11 June 2020

Abstract: European hedgehogs (*Erinaceus europaeus*), also known as common hedgehogs, can be found all throughout Western Europe, including the Iberian Peninsula and Italy on the south side and Scandinavia in the north. Hedgehogs are known to carry a variety of bacterial and fungal pathogens, as well as viruses, the pathological and zoonotic potential of which is not yet fully elucidated. Here, we report the discovery of a novel paramyxovirus, named Belerina virus, in Belgian hedgehogs. Based on its divergence from other known paramyxovirus species, Belerina virus is thought to represent a new species in the family *Paramyxoviridae*. Phylogenetic analysis groups Belerina virus together with members of the genus *Jeilongvirus*, although its genome organization is most similar to that of several as yet unclassified bat viruses. Because of several dissimilarities with other Jeilongviruses, these bat viruses have been proposed to represent a new genus, tentatively called “*Shaanvirus*”. Out of 147 animals screened in this study, 57 tested positive for Belerina virus (39%), indicating the wide spread of this virus throughout the Belgian hedgehog population, although the virus’ pathogenic and zoonotic potential remains to be elucidated. In summary, we present here the complete genome sequence of Belerina virus, a putative new paramyxovirus species commonly found in Belgian hedgehogs.

Keywords: hedgehog; *Paramyxovirus*; *Jeilongvirus*; *Erinaceus europaeus*



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