

非洲灰鸚鵡之鳥類玻那病毒鑑定及基因體特性

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摘要

鳥類玻那病毒可感染多種鳥類包含多種珍貴瀕危鸚鵡、金絲雀、加拿大鵝、綠頭鴨、文鳥等。鸚鵡玻那病毒被認為是造成鸚鵡前胃擴張症的主要病原。鳥類玻那病毒為親神經型的病毒，可造成鸚鵡慢性致死性的前胃擴張症狀。因鳥類玻那病毒株間基因序列的差異甚大，2015年國際病毒分類委員會(International Committee on Taxonomy of Viruses, ICVT)，將其重新分為 5 個種。於鸚鵡前胃擴張症中常見的是 parrot bornavirus 2 (PaBV-2)及 parrot bornavirus 4 (PaBV-4)。2016 年我們從一隻具有前胃擴張症狀的非洲灰鸚鵡病例中，發現並分離到一株鳥類玻那病毒。本病毒株的基因體序列最相近於 PaBV-4，其全基因體相似度為 95%。而該灰鸚鵡飼主改善其飼養場所的衛生管理後，便沒有再發現新的相似病例。

Identification and genomic characterization of avian bornavirus isolated from an African grey parrot

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Abstract

Avian bornavirus (ABV) can infect a variety of birds including a variety of rare and endangered parrots, canaries, Canada geese, mallards, and munia. Avian bornavirus is a neurotropic virus and its infection can lead to chronic and fatal proventricular dilatation disease (PPD) in parrots. According to the differences between ABV genomes, the International Committee on Taxonomy of Viruses (ICTV) reclassified the genus Bornaviruses into five species in 2015. Parrot bornavirus 2 (PaBV-2) and parrot bornavirus 4 (PaBV-4) are the most common types detected in parrots with PPD. In 2016, we detected and isolated an ABV from an African gray parrot which was reared in a breeding farm and had clinical signs of PPD. The viral genome sequence of the isolated ABV was most closely related to PaBV-4, (full-length genome similarity of ~95%). Since this case of PDD was discovered, the breeding farm has improved its sanitation practices, and no similar case have been reported.