Detection of herpesviruses and mycoplasma in pet turtles and tortoises

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OBJECTIVES

Herpesviruses and mycoplasma have been frequently described in chelonians, particularly tortoises. Both are associated with disease of the upper respiratory and digestive systems, both have also been described in clinically healthy animals, and both are able to cause persistent infections in affected animals. The aim of this study was to determine the prevalence of both pathogens in samples from tortoises and aquatic turtles submitted to a diagnostic laboratory in Europe.

METHODS

Standard PCR methods were used for the detection of herpesviruses and mycoplasma, samples included oral swabs and nasal washes as well as various tissues and were obtained from both clinically ill and apparently healthy animals. A total of 1015 chelonians were included.

RESULTS

Of the 1015 animals tested, 427 (42.1%) were positive for mycoplasma, 82 (8.1%) were herpesvirus positive. Mixed infections were detected in 51 animals (5.0%). Mixed infections were particularly common in Russian tortoises (*Testudo horsfieldii*) (22.6% of the animals tested). Characterization of the herpesviruses detected showed 47.6% testudinid herpesvirus (TeHV) 1, 53.7% TeHV3, a single case of TeHV4, and one previously undescribed herpesvirus.

STATEMENT

These findings demonstrate the importance of these infectious agents and their diagnosis in pet turtles and tortoises. Mycoplasma are extremely common in these animals and there has been a shift in prevalences of specific types of herpesviruses in tortoises in Europe. This may reflect effects of the pet trade on the epidemiology of infectious diseases.

Demography and veterinary care of reptiles attending primary-care veterinary practices in England

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OBJECTIVES

This study aimed to use the VetCompass database as a novel source of health and management data on pet reptiles.

METHODS

The VetCompass Programme of primary-care veterinary clinical records was used to identify a study population of 1,663 reptiles attending 191 veterinary practices in England from 1 September 2009 – 28th September 2015.

The full clinical records were manually reviewed in detail to extract data on demography and all recorded disorders and veterinary prophylactic healthcare events.

RESULTS

Chelonians (tortoises: 90%, terrapins: 7.7% and turtles: 2.3%) were the most common species ($n=950$, 57.1%) followed by lizards ($n=509$, 30.6%) and snakes ($n=185$, 11.1%). The most prevalent reasons for presentation overall were 'health check' ($n=194$, 12.4%, 95% CI: 10.77–14.03), 'appetite problem' ($n=160$, 10.2%, 95% CI: 8.7–11.7), and 'traumatic injury' ($n=157$, 10.0%, 95% CI: 8.5–11.5).

By species, the most common presentation reasons in Chelonians were health checks ($n=147$, 15.7%), traumatic injury ($n=98$, 10.5%), nail/beak trims ($n=85$, 9.1%); in Lizards were 'appetite problem' ($n=58$, 12.2%), traumatic injury ($n=47$, 9.9%), death ($n=41$, 8.6%); and in Snakes were 'appetite problem' ($n=22$, 15%), parasite infestation ($n=13$, 8.8%), death ($n=13$, 8.8%).

STATEMENT

The finding that health checks were the most common reasons for presentation support the positive role that management advice from veterinarians can play to improve reptile health. VetCompass provided valuable insights into current veterinary management practices for pet reptiles.

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