First reported UK case of likely dog-to-dog transmission of leishmaniosis

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Veterinary professionals have sounded the alarm in this week's *Vet Record* after treating the first UK case of a dog with the potentially fatal infection, leishmaniosis, that is thought to have been passed on by another dog, rather than by travel to an area where the infection is endemic.

Canine leishmaniosis is caused by the parasite *Leishmania infantum*, carried by the female sand fly and transmitted in its bite. It is zoonotic, so can be passed on to people.

Dogs have been known to pick up the infection after being bitten or wounded by another infected dog. But up to now, this has not been reported in the UK, where cases to date have been associated with blood transfusion, breeding programmes, or overseas travel.

But a 3 year old neutered male shih tzu cross, which had been with its owner since a puppy and had none of the known risk factors for infection, was nevertheless diagnosed with leishmaniosis in Hertfordshire.

Dog to dog transmission is the most likely explanation, suggest the authors, because another dog in the household that had been imported from Spain, had had to be put down six months earlier after developing severe leishmaniosis.

"To the authors' knowledge, this is the first reported case of leishmaniosis in the UK in a dog without a history of travel to an endemic area," they write, adding that extra vigilance is now needed to guard against the spread of the infection.

"In an era of increased foreign travel of dogs and increased importation of dogs to the UK, it is likely that the number of dogs seropositive for *L. infantum* will continue to increase," they warn.

"Leishmania-infected dogs may present an infection risk to other dogs, even in the absence of natural vectors, as direct transmission between dogs is possible," they add.

A second case of canine leishmaniosis in a dog with no obvious risk factors has now also come to light in a different part of the UK.

In a recently published letter in *Vet Record*, vets describe the case of a 3-year-old fully vaccinated male neutered English pointer that was eventually diagnosed with leishmaniosis.

The dog had never travelled outside of the UK, or beyond the borders of Essex, where it lived. But its owners had lived in Spain and travelled to the Jalón Valley (between Alicante and Valencia) without their pet in the summer of 2018.

Unlike the first case, this dog was not living, or in regular contact with another infected dog, and it may be that infected sand flies were inadvertently brought back in the owners' transport, luggage, or clothing, suggest the authors.

"However, the increased importation of infected dogs into the UK also makes incidental socialising with infected dogs increasingly likely," they point out.

The case also "serves as a reminder that we should not be complacent about the risk of *Leishmania infantum* establishing in the UK, even in the current absence of the sand fly vector," they warn.

Junior Vice President of the British Veterinary Association (BVA), Daniella Dos Santos, comments: "The increase in cases of non-endemic diseases such as leishmaniasis is extremely concerning, with more than a quarter of vets surveyed by BVA last year mentioning seeing cases of this rare disease in practice.

"Leishmaniasis is mainly associated with pets who
have recently travelled outside of the UK or 'trojan' rescue dogs from abroad with unknown health histories, which is why we have called on the government to strengthen existing pet travel legislation and its enforcement for the sake of animal and human health in the UK."

She advises pet owners planning on overseas travel with their dog to seek advice from a vet first, while those who already own an imported rescue dog, should contact their local vet for advice on testing and treatment for any underlying conditions.

"Anyone looking to get a dog should consider adopting from a UK rehoming charity or welfare organisation instead of rescuing from abroad," she recommends, "as the unintended consequences from trojan dogs can be severe for the health and welfare of UK's pets and, in some cases, humans too."

**More information:** Myles McKenna et al, Leishmaniosis in a dog with no travel history outside of the UK, *Veterinary Record* (2019). [DOI: 10.1136/vr.105157]

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