

VETERINARY RECORD

Several breeds of dog in England killed by mysterious kidney disease

The disease is suspected to be Alabama rot which causes skin lesions and kidney failure

At least 30 dogs in England have been killed in less than 18 months by an unknown disease which causes skin lesions and kidney failure, reveals research published in **Veterinary Record**.

The disease is believed to be Alabama rot (cutaneous and renal glomerular vasculopathy), a condition which has been seen in the USA in greyhounds for almost 30 years.

While there have been occasional reports of the disease in individual dogs outside of the USA, this is the first report of a series of cases occurring in England. None of the 30 dogs in this English series of cases were greyhounds and evidence of the disease was found in 15 different breeds of dog.

The researchers gathered information on dogs that had presented at 53 English veterinary practices between 1 November 2012 and 31 March 2014 with skin lesions, acute kidney injury of no identifiable cause and histopathology showing evidence of blood clots in the small vessels of the kidney (renal thrombotic microangiopathy). Cases were identified both from searches of the practice records and the memories of vets working at the practices.

A total of 71 possible cases occurred during the study period, but 41 were excluded due to limited investigations or because medical records were incomplete.

The 30 dogs that met all three criteria fell into a variety of breeds: English springer spaniel (5 dogs), crossbreed above 20 kg (4 dogs), flat coated retriever (4 dogs), whippet (3 dogs), border collie (2 dogs), Jack Russell terrier (2 dogs), Doberman (2 dogs), and one each of Labrador retriever, cocker spaniel, Staffordshire bull terrier, Hungarian vizsla, Weimaraner, Dalmatian, Tibetan terrier and crossbreed below 20 kg.

The dogs were located in multiple areas of northern and southern England, but 10 had been in the New Forest National Park shortly (four hours to 14 days) before developing skin lesions and/or becoming unwell.

Most of the dogs had been taken to the vet by their owners because of skin lesions. Some dogs were already unwell, but in others systemic clinical signs (tiredness, loss of appetite, vomiting and fever) generally developed a few days later. No evidence of E coli shiga toxin, which can cause sudden onset kidney damage in humans as part of a disease called haemolytic uraemic syndrome (HUS) was found in the kidneys or faeces of affected dogs.

Twenty four of the 30 dogs died or were put to sleep because of the disease, and six were put to sleep at their owner's request.

Acute kidney injury in these dogs was caused by damage to the small blood vessels of the kidney (renal thrombotic microangiopathy). Renal thrombotic microangiopathy is relatively rare; it is found in less than 1% of samples held on the International Veterinary Renal Pathology Service database of more than 1,000 renal biopsies. The pathology is also found in another rare disorder affecting dogs and humans - haemolytic uraemic syndrome - which results in acute kidney injury and anaemia, but which is not associated with skin lesions.

The authors say that it is unclear whether canine haemolytic uraemic syndrome and cutaneous and renal glomerular vasculopathy [Alabama rot] are two distinct disease

VETERINARY RECORD

processes, but emphasise that damage to both the small blood vessels of the kidney and the skin seems to be unique to Alabama rot.

They conclude that continued detailed clinical, pathological and epidemiological evaluation will improve understanding of the disease and help to identify possible triggers and the best management options. Currently it is unclear whether this is an emerging disease or one that was previously present but unrecognised.