

## **Cutaneous and renal glomerular vasculopathy (CRGV)**

### **AKA Alabama Rot**

**The story so far from David Walker and Laura Holm of**

### **Anderson Moores Veterinary Specialists**

CRGV is an illness, causing ulcers (or sores) on any or all of, the limbs, underside, muzzle and oral cavity of affected dogs. About ¼ of affected dogs will develop acute kidney injury (which is sudden kidney failure). As far as we know, it is a relatively new disease in the UK – with the first cases reported during the winter of 2012-2013.

#### **Signs:**

Dogs will often initially develop a skin lesion or lesions, which are commonly found on the paws, legs, undercarriage, muzzle, and / or tongue.

The lesions are often circular, and commonly ‘ulcerated’ – i.e. they have a central raw area. Sometimes there will be redness, swelling or bruising around the edge of the lesion.

The lesions are often very painful and some dogs will be ‘off-colour’ at the same time. Dogs will often lick their lesions and, if the lesion is on a foot, they may be lame. Some dogs will look stiff, go off their food, and / or vomit.

It is sensible to seek veterinary advice for any dog which seems unwell or which has an unexplained skin lesion.

There may be a ‘winter’ seasonality and CRGV is widespread across the UK.

#### **Why are we so worried about CRGV?**

Unfortunately, <25% of the dogs which have developed kidney failure associated with CRGV have survived. The cause remains unknown, in spite of extensive investigations over the last 3.5 years.

The disease can affect any dog – of any breed, age, sex or weight, but fortunately remains quite rare (72 confirmed cases with kidney failure since November 2012).

### **Is CRGV caused by *E.coli*?**

Faeces, skin lesions, and kidneys of dogs with CRGV have been tested for *E.coli*, which can cause a similar illness (haemolytic uraemic syndrome, or HUS) in people. No *E.coli* have been found. Kidneys from affected dogs have been tested for Shiga toxin produced by *E.coli* – NONE has been found. Blood from affected dogs has been tested for antibodies to *E.coli* which cause HUS – NONE have been identified. So can we completely exclude *E.coli*? - Unfortunately not quite yet, because these bacteria and their toxins can be very difficult to isolate / identify, however, it currently appears to be an unlikely cause. Investigations are ongoing.....

### **What other possible causes for CRGV have been investigated?**

- Is it Leptospirosis? (Weills disease)

Most dogs with CRGV were negative when tested for Leptospirosis and many were vaccinated against Leptospirosis (which helps to protect against infection with *Leptospira*). Additionally, most dogs which have Leptospirosis respond well to treatment, as opposed to the poor response to therapy seen with CRGV.

- Is it Lymes Disease? (carried by ticks)

Ticks are active in Spring and Autumn, rather than Winter (so the wrong time of year for CRGV). Some signs of Lymes disease are similar, but most importantly, the microscopic changes (pathology) in the kidney are totally different from CRGV

- Giant Hogweed?

This grows in summer. It causes nasty skin lesions in sun light, but is not associated with acute kidney failure. Recent work by senior botanist suggests that it is unlikely for any plants, trees, fungi, or shrubs to cause CRGV

- Fish bacteria? (*Aeromonas*).

This is currently under investigation. *Aeromonas* produces a toxin (a bit like *E.coli*) which could cause CRGV. *Aeromonas* cause disease in fish, including skin lesions. There is a study checking for evidence of *Aeromonas* infection in dogs with CRGV.

- Military Ordnance?

There has been no evidence for heavy metals, bacteria, or toxins in soil or water samples tested from the New Forest, and none identified in kidneys of affected dogs.

- Radioactivity?

The clinical signs of CRGV are not consistent with radiation poisoning. Radiation would affect all dogs equally in an affected area, which is not what we see with CRGV

### **How can CRGV be prevented?**

As the cause remains unknown it is very difficult to advise how best to avoid CRGV. Washing dogs after a walk (using tepid water) might be a sensible precaution but it is unknown as to whether this is either necessary or of any benefit.

Please do not use strong antiseptics / disinfectants or other chemicals to bathe dogs. This could be harmful.

There is no evidence that dogs can catch CRGV from each other (dogs which walked together were more likely to all be affected than dogs which lived together but did not go on the same walks).

There is no evidence that they can catch it from a place where an infected dog has been (e.g. the vets, the dog groomer, or the boarding kennel).

It is possible that there is an environmental 'trigger' but this is currently unknown.

It is therefore up to each individual dog walker to decide whether to avoid certain types of terrain, or certain areas.

### **What should a dog owner do if they are worried that their dog has CRGV?**

If you, or anyone else, is worried about a dogs health for any reason, the vet to which that dog is registered should be contacted (or the vet most local if the pet is not registered anywhere). Remember that the majority of 'skin lesions' will NOT be due to CRGV. If it is CRGV the majority of dogs will NOT develop kidney problems and will recover fully.

- ❖ There is currently no central research fund
- ❖ All work so far has been done as a result of incredibly generous donations from the public.
- ❖ There are individual fundraising events, and if anyone wishes to fundraise, please do!
- ❖ There is ONE main charity currently in place:
- ❖ Set up by New Forest Dog Owners Group:

<https://www.newforestdog.org.uk/nfdog-research-fund>

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