Information for vets and pet owners

Description

Blue-green algae are actually bacteria, known as cyanobacteria, and are found in fresh, brackish (slightly salty) and marine water bodies, most commonly during warmer months of summer. Although they often have a blue-green colour they can also be red, brown and black. They grow as single cells, cell clumps or filaments as floating (planktonic) blooms or bottom-dwelling (benthic) mats in water bodies. Some species naturally-produce a range of harmful toxins.

Exposure

Animals have become poisoned through direct exposure to the toxins in and surrounding water bodies containing cyanobacteria. Highest concentrations are found in visible clumps, notably in “algal scums”. Such material may be present in the shoreline close to the water, so may not be immediately obvious. Ingesting even small quantities of such materials, through either drinking, licking or eating, can be hazardous and cause poisoning in animals.

Signs of poisoning

There are several different toxins produced by different blue green algae.

Irritant effects

- Salivation, vomiting (which may be bloody), abdominal discomfort and diarrhoea (occasionally).
- On the skin they may cause an itchy rash.

Neurotoxins

- Rapid onset of signs (usually within 1 hour) with salivation, muscle tremors, wobbliness, paralysis, slow heart rate, respiratory failure and convulsions.

Liver toxins

- The most common type of exposure in dogs. Effects usually occur within 24 hours.
- Vomiting, diarrhoea, anorexia and lethargy. Followed by weakness, pale mucous membranes, evidence of bleeding, shock, jaundice, renal impairment and liver failure.

Actions

- Any animal ingesting materials, swimming or playing in water suspected to contain blue green algae toxins should be taken immediately to a veterinary practice.

Treatment

- No antidotes are available.
- Gut decontamination if ingestion was recent and depending on the clinical condition of the animal. Activated charcoal can be given as an adsorbent.
- Thorough decontamination of skin and fur.
- Monitoring of vital signs, clinical condition and blood tests (liver function, renal parameters).
- Rehydration.
- Liver toxins: Liver protectants; blood transfusion, if required.
- Neurotoxins: Assisted ventilation for respiratory failure. Anticonvulsants, if required. Atropine for slow heart rate or severe salivation.

Samples

To enable analysis to be conducted to assess the potential for cyanotoxin poisoning, the following samples should ideally be taken:

- Regular urine samples (ideally within 2 hours, 4-6 hours and 10-12 hours of symptoms)
- Any samples of vomit
- Blood samples (ideally within 2 hours, 4-6 hours and 10-12 hours of symptoms)
- Samples of water and algal material/scum found in the nearby vicinity (can be stored in any bottle close to hand and capped/sealed)
- Once taken, samples should be stored in a refrigerator until they can be shipped to Cefas for toxin testing
- Contact Andrew.turner@cefas.gov.uk (01305-206600) for advice

Follow up actions

1. Contact local authority and log the incident with all associated details
2. If water body is on private land, also contact water body owner to log the incident
3. Report incident to Environment Agency Incident hotline on: 0800-807060

Information on management of specific cases

- Contact the Veterinary Poisons Information Service for advice (for veterinary professionals); available 24 hours: www.vpisglobal.com/

Dated 15 November 2022

In memory of Cove Egginton a much-loved, gentle Flatcoated Retriever whose life was far too short.