



Non-regenerative Anaemia in Cats and Dogs Fact Sheet

What is non-regenerative anaemia?

Non-regenerative anaemia occurs when the bone marrow is unable to produce sufficient new red blood cells to replace cells that naturally die off as they age. This results in a reduction in the total number of red cells circulating in the blood and consequently reduced oxygen delivery to the tissues. Non-regenerative anaemia can occur in both cats and dogs.

What are the signs of non-regenerative anaemia?

Non-regenerative anaemia generally develops slowly allowing time for the animal to adapt to a low red cell count. This means that signs associated with the anaemia are often subtle initially but become more noticeable over time. Common signs include lethargy, exercise intolerance, reduced appetite and increased breathing rate, particularly after activity. Gums can be very pale if the anaemia is severe. Marked weakness or being unable to stand can be seen in patients with severe anaemia.

What causes non-regenerative anaemia?

Causes can include a variety of infections, for example, Feline Leukaemia Virus (FeLV) in cats or *Ehrlichia* in dogs that have travelled abroad. Other causes include toxins, medications or supplements, excess oestrogens, chronic kidney disease, iron deficiency and cancer. If investigations fail to identify a cause for the anaemia it is most likely that the red cells are being destroyed within the bone marrow by the immune system. This disorder is called precursor targeted immune mediated anaemia (PIMA).

How is non-regenerative anaemia diagnosed?

Tests can include examining the blood cells under the microscope, blood tests to assess organ function particularly kidney function and infectious disease testing. Imaging, including chest x-rays and ultrasound of the abdomen, or in some cases CT of the chest and abdomen are used to try and exclude known causes of non-regenerative anaemia. If no abnormalities are found with these investigations then a bone marrow biopsy might be performed.

What treatments are available for non-regenerative anaemia?

When the anaemia is severe a blood transfusion will be needed to stabilise the patient. Direct treatment of the anaemia depends on the cause. Underlying infections should be treated if identified and where treatment is available. Medications associated with non-regenerative anaemia should be stopped. In conditions such as chronic kidney disease, hormone therapy to increase red cell production and iron supplementation may be used (other causes do not respond to hormone treatment). PIMA is managed using medications that suppress the immune system.

For some infections (eg FeLV in cats) there are no effective treatments available. The response of PIMA to immunosuppression is variable. Approximately 50% of dogs will respond to treatment. Response rates are higher in cats. Where treatment is effective it can be several months before a response is seen. Repeated blood transfusions may be needed during this time.

Linnaeus Veterinary Limited trading as Davies Veterinary Specialists 01582 883950

©2021 Davies Veterinary Specialists