## What are your pet's eyes telling you?



Meet Minnie. Minnie's owners brought her to see us back in May last year as they were worried about her right eye. She had been squinting and was just not quite right. She hadn't eaten that day, which had caused some alarm since she is quite a foodie! Minnie, a normally healthy four year old dog lives in a busy household with three cats and another dog so at first we wondered if she could've banged her eye on something while doing the zoomies.

There was marked hyphaema - blood in the anterior chamber (front part of the eye) and it was blind and painful. Aggressive treatment with anti-inflammatory eye drops and oral medicine was started. Minnie was seen the next day. To our dismay, her eye was worse and Minnie was still off her food. We began to wonder if there could be something more going on...

A dog's eye has some remarkable features. A large lens helps collect and focus light like a magnifying glass and most dogs have a tapetum - a reflective layer that further concentrates light onto the retina, giving them better night vision than us humans.



Minnie's right eye the next day



Minnie's left (normal) eye

This gives the green/blue glow you can sometimes see in a dog's eye like in this picture of Minnie's good eye. Unfortunately, the inner workings of a dog's eye are very sensitive to trauma and uveitis (inflammation of the eye), more so than a human's and an inflamed eve like Minnie's here is at risk of permanent blindness

Another amazing thing about eyes is that they are the only part of the body where you can clearly see nerves and blood vessels. Sometimes vascular and neurological problems in the rest of the body can be detected by looking into the eyes. Could Minnie's eyes be trying to tell us something important?





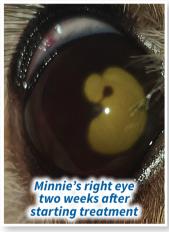
McMASTER HEAP VETERINARY PRACTICE In the picture of Minnie's normal retina, you can see the red blood vessels radiating outwards from the whitish optic nerve head in the middle. We did some

blood tests to see if there could be an underlying problem causing bleeding and inflammation of Minnie's eye. The results showed some agglutination (abnormal clumping) of red blood cells, suggesting some abnormal stimulation of her immune system but nothing definitive. Her blood cell levels were



normal. We continued with her eye treatment and monitored the trends.

As you can see from the pictures, Minnie's right eye responded well to the medications. The blood slowly cleared and to our amazement, her vision returned. The eye became less blurry as the inflammation subsided. You can see her pupil is irregular where posterior synechiae formed where the iris (brown part of the eye) has fused with the front of the lens. This is a common and expected sequel to uveitis.





Follow up blood tests showed continued agglutination of red blood cells, alarmingly low platelet levels, abnormal red blood cells and mild anaemia (low red blood cell levels). Platelets are the clotting cells in the blood. If there are too few, bruising and internal bleeding can occur, resulting in serious illness and sometimes sudden death. Could there have been a spontaneous bleed in Minnie's right eye?

The blood tests were suggestive of immune mediated thrombocytopenia and haemolytic anaemia - where the immune system destroys its own red blood cells and platelets. Getting one of these diseases is bad enough. When both of these processes occur together, it is known as 'Evan's syndrome'. These diseases are rapidly fatal if untreated. Unfortunately, we often don't see these patients until they get really ill. They often require blood transfusions and days of hospitalisation.

Since Minnie was still rather well, we had time on our side. Evan's syndrome can occur spontaneously or in response to a stimulus like an infection or cancer.



Minnie had x-rays and an ultrasound scan to try to find an unknown inciting cause. Fortunately, no abnormalities were found - the scan and x-rays were clear. So either her eye problem was part of the inciting cause or the eye problem was a result of a spontaneous bleed from waxing and waning platelet levels. In any case, it was her eye that prompted us to



Ventrodorsal radiograph of Minnie's chest

identify the heamatological disease early and start treatment before she got seriously ill.

The moral of the story: If you're worried about your pet's eyes, visit your vet because you never know what those eyes might be trying to tell you. Minnie's eye saved her life.

We started immunosuppressive steroids to stabilse her heamatological disease and Minnie responded very well, her red blood cells and platelets returning to normal

One side effect was that the medicine made her very hungry until we reduced the dose. Thanks to the dedication of her owners keeping a close eye on Minnie, administering her medicines and bringing her for her appointments, we were able to slowly reduce her steroid dose. We were able to stop her eye drops and she is still having a low oral steroid dose to keep things under control.



We expect her to live a long and happy life. While her right eye looks a bit funny with the synechiae and a mild cataract, it is comfortable and allows for decent vision, a better expected outcome given how bad her eye was when we first saw her. While we are not sure if Minnie would pass a driving test, you can see that she is quite happy living her best life as a passenger princess.

Dr Jack Newton-Jackson, July 2025

