Horner’s Syndrome

What is Horner’s Syndrome?

Horner’s Syndrome is the name given to a neurological condition that is occasionally seen in dogs, and very rarely seen in cats. It usually only affects one of the eyes, and so animals are usually presented to the vet due to a worry about a primary eye problem.

What are the symptoms?

There is usually a very specific set of symptoms associated with this condition:

- It usually only affects a SINGLE eye.
- There is a protrusion of the third eyelid – it appears to sit partially across the eyeball.
- There is a noticeable “droop” of the lower eyelid on the affected eye.
- The pupil on the affected side is much narrower. This gives rise to a phenomenon called anisocoria which is where the pupils are different sizes.

What animals are affected?

We can see this condition in any breed of dog or cat. However the most common breed we see it in is Golden Retrievers.

With other breeds, it seems to be medium/large breed dogs that are more likely to present compared with the smaller breeds.

Most of the time, it is usually middle age to older dogs that are presented to us.

Figure 1: Golden Retriever with Horner’s Syndrome affecting the dog’s LEFT eye

For more information, visit: www.biltonvets.co.uk/advice.html
What causes Horner’s Syndrome?

Horner’s Syndrome is actually a disruption of a complicated nerve system that follows an odd pathway through the body. The nerve pathway exits the brain, travels backwards towards the first few vertebrae in the chest, before turning round and returning back towards the eyes.

Horner’s Syndrome is actually further classified into three subtypes:

1st Order Horners – is where the nerve is affected on the part of the journey from the brain to the chest.
2nd Order Horners – is where the nerve is affected as it starts to make its way forward again to the neck
3rd Order Horners – is where the nerve finally moves towards the eyes.

How is Horner’s Diagnosed?

Most cases can be diagnosed just by a good and thorough physical examination and ophthalmic investigation. However it can be useful to do a further test to try and establish what “order” Horner’s syndrome is present (see above). This is done by doing a Phenylephrine test. This is a very simple test that involves putting medication into the affected eye, and then timing how long it takes the symptoms to resolve. From this information we can establish a bit more information about where the problem may lie.

What causes Horner’s Syndrome?

Unfortunately there are lots of potential causes of this condition, due to the length of the nerve pathway. However it can be caused by:

- **Idiopathic** (ie no specific cause). This is **BY FAR** the most common cause!
- **Thyroid Deficiency**. Dogs with hypothyroidism can commonly get this as a primary symptom. Particularly Golden Retrievers again. Again this is quite common.
- **Trauma**. We see this after traffic accidents or fight injuries, particularly around the neck area.
- **Other Neurological Diseases**. Any degenerative conditions that can affect nerves can cause Horner’s.
- **Chest Lesions**. Masses/cancer in the chest can occasionally cause Horners.
- **Tumours of the spinal cord/vertebrae**.

As you can see the causes are wide, varied and range in severity! **However it is really worth noting that by far the majority of cases are not caused by anything sinister.**
What further tests are necessary?

We generally advise that we take the presence of Horner’s Syndrome in context with the physical health of the animal, as well as the results of a proper examination. We normally suggest a practical approach with dogs that are showing no other problems, is to just check for the presence of thyroid disease (a simple blood test).

If other symptoms are present (such as a cough, or neck pain for example) then further diagnostics should be considered such as radiographs, CT scans etc. Your vet will discuss what further testing is deemed to be appropriate with you.

Is Horner’s Syndrome a problem/painful?

This is not a painful condition and rarely causes any disturbance to the animal. Occasionally there is visual impairment due to the third eyelid occluding part of the visual field. This can sometimes be a problem if the animal keeps bumping their head on that side of their face, but this isn’t seen as a major issue.

What is the prognosis?

The majority of cases of Horner’s Syndrome are idiopathic and these cases tend to resolve with no intervention required within 3-6 months. Cases that are due to thyroid disease often resolve much quicker once the thyroid disease is under control.

If the Horner’s Syndrome is caused by another reason, then the prognosis depends on the primary disease and this would require further discussion with your vet.