Equine Sinusitis

Horses generally have a highly efficient anatomy that allows them stay healthy and perform to their full potential. However there are one or two areas that have evolved in what appears to be a less than perfect way. One such area is the system of nasal sinuses. The sinuses are linked air filled chambers that occur on both sides of the head. The lining of the sinuses produces fluid and mucus which drains into the nasal cavity. It would seem logical for this drainage point to be on the floor of the sinuses so that the fluid produced is drained by gravity but for some reason (as yet unknown!) the drainage point is towards the upper aspect of one of the sinuses. This means that during times of increased mucus production the system that pushes mucus up to the drainage point becomes overwhelmed and the sinuses fill with fluid.

This most commonly occurs during infection of the sinuses. When mucus and pus build up during infection and drains into the nasal cavity it is generally seen as discharge from just one nostril, as opposed to both nostrils which is usually seen during chest or other upper respiratory tract infections. This is because sinusitis usually occurs on just one side of the head. Sinusitis (inflammation of the sinuses) is the first thing to rule out when unilateral nasal discharge is seen.

The diagnosis is easily confirmed by using an endoscope, a flexible camera that is passed up the nasal cavity and allows us see where the fluid is draining from. If it seen coming from the sinus drainage point then the patient must have sinusitis. X-rays are also very useful as they may show how much fluid has built up within the sinus and may also reveal what has caused the problem in the first place

There may be an underlying cause such as an infected tooth root, a sinus cyst or a growth but often sinusitis occurs with no detectable cause. This is known as primary sinusitis and is sometimes associated with a previous respiratory infection. There is often a very unpleasant odour from sinusitis, but this doesn't necessarily indicate the involvement of a tooth abscess. Uncomplicated cases that are picked up and treated quickly may respond to a prolonged course of antibiotics, but in cases where there is a significant accumulation of pus or fluid within the sinus the usual drainage mechanisms are unable to cope even if the infection is controlled with antibiotics. When this happens flushing of the sinuses is required, as well as treatment of any underlying cause.

To flush the sinuses a catheter is place through a small hole that can be easily drilled in the uppermost sinus. When the hole is created an endoscope can be passed into the sinus before the catheter is fitted so that a complete internal examination of the sinus can be made. This may be very useful in detecting the cause or extent of the infection. Most horses tolerate this very well under sedation and local anaesthetic. The catheter is stitched in place

for 10-14 days and allows the sinuses to be flushed with about five litres of saline once or twice a day which drains out of the nose. I am always surprised how well horses and ponies cope with this - I have yet to treat one that doesn't stand very well for the flushing procedure without sedation. It appears to almost be soothing for them which suggests sinusitis causes more discomfort than these patients often appear to show and that removal of the infected fluid eases the pain.

If there is an underlying cause this will often require treatment. Infected teeth require extraction and other problems such as sinus cysts usually require surgical attention. In severe cases surgery to increase the drainage between the sinuses and occasionally the nasal cavity is needed. If sinus surgery is required this can also often be done under sedation. Avoiding general anaesthesia is safer for the horse and the risk of haemorrhage is reduced as the head can be held up, reducing the blood pressure to the head.

In many ways it would seem that these problems could be avoided if the horse had developed with a better system of drainage for its sinuses. Perhaps in another few million years it will have. Alternatively, and maybe more likely, we will eventually discover why it has evolved in the way it has and why it is actually far better designed than we currently think!