XL Vets Equine

Fact Sheet

Recurrent Airway Obstruction

Recurrent airway obstruction (RAO) is an environmentally-induced, non-infectious, non-contagious inflammatory airway disease of horses. The disease was previously termed chronic obstructive pulmonary disease (COPD) or broken wind and is also known as 'heaves' or 'equine asthma'. It occurs when a horse develops an allergy to inhaled fungal spores.

It is a disease primarily of the stabled horse and it is uncommon in young horses. The most important treatment is modification of the environment to reduce exposure to hay and straw. Such a change can reduce inflammation and improve airway function within a few days. When environmental management is insufficient, medication can improve lung function.

Clinical Signs

The clinical signs of RAO are extremely variable. In mild cases, there may be few signs other than poor performance or exercise intolerance. In severe cases, the horse may be struggling for breath.

Other signs that may be seen include:

- increased respiratory rate (>12 breaths per minute when resting)
- nostril flaring
- persistent cough
- nasal discharge, possibly from both nostrils
- double "heave" on expiration - breathing out.

Affected horses do not usually have a raised body temperature.

Your vet may perform further diagnostic tests to confirm a suspicion of RAO.

- Blood tests usually show normal white blood cell counts and ratios.
- Endoscopy: Under mild sedation, a small flexible camera may be passed up the nose via one nostril and then into the windpipe. It may be possible to see increased mucus / respiratory secretions in the windpipe (figure 1).
- A sample of this mucus may be taken and examined either at a laboratory or under a microscope to look at the cell type or to culture bacteria (figure 2).

CLINICAL ADVICE

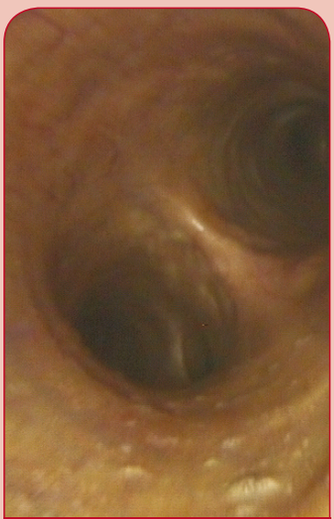

FIGURE 1: INSIDE THE WINDPIPE

Photograph of the inside of the windpipe just as it enters the lungs. The drops of mucus can be seen as lighter coloured accumulations at the bottom of the photo.

FIGURE 2: SAMPLE OF FLUID FROM THE LUNGS

Photograph showing a sample of fluid taken from the lungs. The "frothy" appearance is caused by the increased number of cells in the sample.

XLEquine Recurrent Airway Obstruction

Medical Conditions

MC

FACTS ABOUT RECURRENT AIRWAY OBSTRUCTION:

- incidence increases with age;
- no breed or sex predisposition;
- usually initiated by exposure to fungal spores in hay or straw;
- environmental dust free management most important;
- clinical signs are reversible if environmental management appropriate;
- occasionally RAO develops in the spring or summer in horses due to a pollen allergy.

ENDOSCOPE - THIS MAY BE PASSED UP YOUR HORSE'S NOSE INTO THEIR WINDPIPE TO ASSIST DIAGNOSIS OF RAO

The presence of inhaled particles in the airways has two effects:

- the airways reduce in diameter, which reduces airflow and lung ventilation;
- the cells lining the airways produce more mucus, which reduces efficiency of gas exchange in the lungs.

USING AN EQUINE INHALER

Drugs that can be given to improve lung ventilation and reduce inflammation:

- A powder is available to help break down the excess mucus in the horse's airway.
- A bronchodilator can be used to increase the diameter of the narrowed airways and helps to reduce mucus production.
- Steroids are a very effective anti-inflammatory and can be given by either inhaler or in feed.

TREATMENT

- feeding haylage or soaked hay can improve air hygiene;
- use alternatives to straw for bedding such as shavings, sawdust, paper;
- turn-out as much as possible, ideally 24 hours a day;
- if your horse has a severe attack it will need emergency treatment.

XL Vets Equine

XLEquine is a novel and exciting initiative conceived from within the veterinary profession made up of independently owned, progressive veterinary practices located throughout the United Kingdom, members of XLEquine are committed to working together for the benefit of all their clients.

For further information contact your local XLEquine practice:

www.xlequine.co.uk