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This article written by Dr. Erik Belloy DVM MRCVS, a partner at The Horse Clinic, is reprinted with the kind permission of The Essex Rider monthly magazine.

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Asthma for horses

Does it exist?

If your horse or pony has a respiratory problem such as a cough, wheezing or shortness of breath he could be suffering from Recurrent Airway Obstruction (RAO), also referred to as "Heaves". Difficulty in breathing causes the horse's flanks to heave, hence equine respiratory problems have been traditionally known by many horse owners under that name. The condition is also described as "broken wind", "hay-straw allergy" or emphysema. In this article, Erik Belloy from The Horse Clinic will discuss some interesting facts about this common disease.

It is only severe cases that show classic signs of heaving. Mildly affected horses may only have the odd cough at the beginning of work, or when eating. Others may just have slightly flared nostrils at rest or a respiratory rate of more than 16 breaths per minute. Coughed up mucus can often be seen over the stable door in the morning. Exercise intolerance is the most common feature of RAO. These symptoms are not exclusive to Heaves, and could be caused by other respiratory problems, such as infections. Older horses that are no longer exercised can be silent sufferers. It would be impossible to detect exercise intolerance, or a cough at canter in these veterans. Veteran owners need to be vigilant looking out for their mounts to prevent them becoming severely diseased before giving them treatment they deserve.

RAO is an equine disease affecting the horse or pony's lungs. It used to be referred to as chronic obstructive pulmonary disease (COPD), but has now been re-named RAO as there is also a human disease called COPD. RAO is a descriptive term for a mixture of conditions, with a similar effect on the lungs, narrowing and spasms of the small airways and increased mucus production in the lungs. That mucus

and pus will lead to further narrowing of the airways, and is the cause of the coughing that many horses display when exercising

RAO is mainly caused by exposure to dusts and moulds, especially in bedding and feed. This type of RAO is caused by sensitivity to all fine dust, which irritates the lungs when inhaled. This cause of RAO is most common and frequently seen in horses that are stable-kept some of the time. Another cause of RAO is allergic in origin. This form of RAO is often referred to as SPAOD (summer pasture-associated obstructive pulmonary disease), and produces similar symptoms to RAO but has different causes. It is associated with the pollens and dust particles that a horse is exposed to during the summer months. Both these previous conditions are most common in middle-aged and older horses. Younger horses can suffer from RAO due to infections in the lungs, often a remnant from contagious diseases such as Flu, Herpes or Strangles. Some vets are convinced that these minor lung infections, if left untreated, can lead to horses suffering from Heaves and have long-term RAO.

Horses and ponies suffering from Heaves need special care and management to allow them to live a comfortable and active life. Without management solutions, there is no point treating horses. The environment needs to be cleared of inhaled particles. The need to separate the horse from the causative environment requires owners and their vets to work out whether the horse is suffering from dust-related problems, or pollen-related disease. It is clear that the management for a horse with allergy is different from the treatment of a horse that suffers from stable dust related RAO.

- Keep horses suffering from RAO out at grass as much as possible, ideally this should be for 24 hours a day.
- Remove hay from the horse's diet and get an alternate source of fibre such as haylage. If that is

not possible, make sure the hay is soaked for at least half an hour, and make sure it gets eaten whilst still wet.

- If your horse has to be stabled ensure that all bedding and feed is as free of dust and mould spores as possible.
- Don't groom or muck out your horse while he is still in his stable as this will expose him to more dust.
- Good ventilation is always essential for the respiratory health of your horse or pony. The stable design and layout can be fundamental to success or failure of treatment.
- Never work your horse in a dusty arena or school.
- Feed your horse at floor level - lowering his head will help to clear secretions from his lungs.
- Be careful with smouldering fires near where the horse is kept.
- Discuss a care and management regime with your vet.

Management of horses with Pollen related RAO

- Avoid turnout when the pollen counts are high
- Make sure you apply all above management practices when you keep the horse in. Most horses with allergies will still be sensitive to dust.
- Night turnout might be better than day turnout.
- Horses might be better exercised in the morning, rather than in the evening.
- The nearby vegetation can play a huge role, and particularly rapeseed has been implicated in the rise of this condition

Treatment for Heaves

- Before treatment can be started a diagnosis might have to be made. This could involve simple auscultation and observation. Often, your vet may use a camera to inspect the airways as well as to collect a mucus sample for laboratory analysis.

- The two main equestrian treatments for respiratory diseases are drugs that dilate the bronchioles and those that decrease the inflammation within the lungs.
- Clearly, younger horses that suffer from the infectious type of RAO would need to be treated with an appropriate antibiotic.
- One option for a bronchodilator is the drug clenbuterol (Ventipulmin) which is given orally twice a day.
- The only effective lung anti-inflammatories are corticosteroids, which function to reduce the inflammation occurring with respiratory illnesses.
- Sometimes a mucolytic and expectorant (a drug that liquefies mucus and helps its excretion) can be prescribed.
- Many of these drugs are available in oral forms, but inhaled treatment is thought to be the future for treatment. Oral treatments will cause a greater chance of side effects, because more drug is used.
- It is now also possible to use certain human asthma drugs in the horse using a tight fitting mask, or an inhaler held against the horse's nostril. Your veterinary surgeon can advise you on this.

The allergic type of heaves is the most comparable equine disease to Asthma. Dust sensitive horses are more comparable to smokers, farmer's lung sufferers or miner's lung. Good dust management should be instigated before the horse has any symptoms as it may prevent poor lung health in the future.



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