

Equine Asthma

Recurrent Airway Obstruction (RAO)

Introduction to Equine Asthma

Equine Asthma or Recurrent Airway Obstruction (RAO) is one of the most common causes of coughing and nasal discharge diagnosed in horses and ponies in the United Kingdom.

The condition itself is non-infectious, non-contagious and the majority of cases are environmentally induced. Most often occurring when the horse develops an allergy / sensitivity to particles that it has inhaled. It is therefore most often seen in stabled horses.

Previously the condition was referred to as COPD (Chronic Obstructive Pulmonary Disorder), however Recurrent Airway Obstruction (RAO) or Equine Asthma is now considered a more accurate description of the symptoms and disease process.



What is Equine Asthma?

The condition is an inflammatory disease of the smaller airways within the lungs (airway branches and air sacs) caused by an allergic reaction, often to tiny dust particles and spores in the air. The reaction in the airways results in an over production of mucus, and thickening of the lining of the small airways, causing them to become partially obstructed and highly congested.

To compensate for this and in order to get enough oxygen into the lungs, the horse has to make an increased effort to breathe. Clinical cases then often develop a cough due to the hypersensitivity and in order to clear excessive trapped mucus.

What are the symptoms?

- Affected horses commonly have a chronic, frequent cough
- Nasal discharge (ranging from clear mucus to thick green/yellow).
- An increased respiratory rate (number of breaths per minute) effort that will usually worsen when they are put under stress or during exercise
- Over time, due to abdominal muscular development from the effort required for breathing, a 'heave line' can develop along the bottom edge of the ribs



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What are the symptoms?

Severe, chronically affected horses may:

- Lose weight
- Lose their appetite
- Pyrexia (raised temperature) is rare unless a secondary infection is involved
- Acute severe attacks of respiratory distress can be experienced due to repeated exposure to high levels of dust or pollens

Which horses are affected?

The disease has a worldwide distribution, affects both sexes and is often seen in all ages of mature horses.

Stabled horses are most affected in the winter and spring (when preserved forage is being fed), whereas horses whose clinical signs are exacerbated when at pasture (due to an abundance of pollens etc. in the air) are seen mostly during the grazing season.

How is it diagnosed?

Usually a diagnosis can initially be based on a thorough clinical examination, history of exposure to dust, pollens or fungal spores, and assessment of the horse's management conditions.

In many cases it is necessary to perform an endoscopic examination and throat washes to allow collection of bronchiolar or tracheal fluid to distinguish between Equine Asthma and other respiratory conditions, such as an infection.

Treatment

Many cases will respond to changes in management alone if caught in the early stages. This involves removing the possible causes of the allergy (whether this is dust, pollen or fungal spores).

- Affected horses should be kept in a 'dust free' management system, designed to keep environmental allergens to a minimum.
- Changing bedding from straw to shavings, paper or other non-organic material can help, as well as keeping the bed as clean as possible.
- Hay should be soaked/dampened before being fed, or haylage may be used if appropriate, and dry feed should be fed dampened.
- Affected horses should be kept away from stores of hay and straw, and other horses stabled on these types of beddings.
- Horses suffering from Equine Asthma due to dust should be turned out as much as possible.
- Horses affected by pollen may worsen due to turnout in certain fields, therefore these horses should be moved to low pollen areas or stabled until the pollen count has dropped.
- In an acute severe flare up, treatment is usually in the form of an injection of corticosteroids to reduce the inflammation and the bodies over reaction to the allergen.
- Sometimes bronchodilators (a type of medication that make breathing easier) are prescribed.
- Often it is necessary to prescribe oral or inhaled steroids to manage the condition longer term.



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Any questions?

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