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The Common Cause of Coughing

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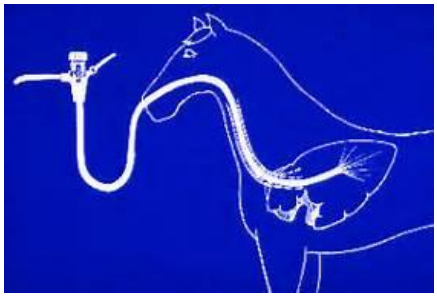
Horses are amazing athletes and their bodies require large amounts of oxygen to perform at their peak ability. Any condition that impairs their ability to breathe can cause their performance to be decreased. The most common non infectious respiratory condition that we encounter is Recurrent Airway Obstruction (RAO), also known as heaves.

Recurrent Airway Obstruction can affect horses of any age but a higher incidence occurs in middle aged horses with the average age of onset being around 10 years old. The symptoms of affected horses include coughing, especially with exercise and when eating, flaring of nostrils, increased respiratory rate, exercise intolerance, and use of abdominal muscles when exhaling.

These symptoms occur mainly because of bronchoconstriction and inflammation of the smaller airways. Affected horses can have symptoms that range from mild to severe. Mildly affected horses may only show symptoms when maximal exercise occurs and severely affected horses may have pronounced difficulty breathing while at rest. These symptoms are triggered by exposure to allergens, especially moldy hay and straw.

Care should be taken to arrive at the correct diagnosis, as there are infectious reasons that a horse may exhibit these symptoms. The treatment for RAO is very different from the treatment of infectious problems. There are several diagnostics that can be used to determine if a horse is affected with RAO. A complete blood count (CBC) should be performed to help rule out infectious causes of coughing. The CBC should be normal in a RAO horse. A bronchoalveolar lavage (BAL) can be performed to obtain a sample of cells from the lungs to help decide if RAO is likely.

This procedure involves sedating the horse and passing a small tube into the lung. This procedure looks very much like when a nasogastric tube is passed during a colic case. The difference is that the tube goes into the lung instead of into the stomach. A small amount of sterile fluid is put into the lower airway and then a syringe



is used to recover that fluid. If a horse is having significant difficulty breathing at rest, a BAL should be avoided until symptoms improve. In serious cases medication can be given to treat the symptoms without having a diagnosis, the horse is then closely observed to see if improvement occurred. Treatment can involve the use of bronchodiolators and steroids.

Long term management of these horses can prove to be difficult. It can be difficult to determine the allergen or allergens that are triggering the symptoms. Medication (steroids and bronchodilators) can be used to manage flare ups. The single most important management technique is modifying the horse's environment. Feeding round bales and housing the horse in a barn and stall can significantly increase the horse's chances of developing RAO. If an affected horse is being kept inside, turn out should occur during and for a couple hours after cleaning stalls until the dust settles again. Exercise in an indoor arena without adequate airflow can also cause a high amount of dust to be in the air and cause a flare up of symptoms.

Horses with RAO are typically affected for life, some have brief flare-ups that are easily managed; some horses are not as lucky and have to be treated for longer periods. Changing the horse's environment is the key to minimizing flare ups. Increasing turnout time, soaking hay, feeding small square hay bales instead of round bales, providing adequate ventilation in the stall area and arena to minimize dust can all help minimize the coughing and respiratory distress seen with RAO.