



Exercise Induced Pulmonary Hemorrhage (EIPH)

Few things cause more panic than blood coming from the nose of your best horse after a hard run. Exercise Induced Pulmonary Hemorrhage (EIPH) or bleeding from the lung is not uncommon in performance horses. The blood comes from capillaries that rupture throughout the lung but most consistently in the dorsal (top) aspect just under the scapula (shoulder blade). The bleeding is caused by direct trauma from the force that is transferred through the thoracic wall and by problems with the dynamics of blood and air flow. It has been noted that only 10% of the horses with EIPH will show an increase in respiratory rate and effort. An early sign can be poor performance at the end of a race, prolonged cool out with excessive sweating (likely from dilation of blood vessels and stress). The flow dynamic can be improved with the use of nasal strips, furosamide (Lasix), bronchodilators (eg Ventipulmin), and immunomodulators (concentrated equine serum, zylexis and equistim).

It is essential to get prompt veterinary attention for your horse when there is blood after a race. A thorough physical exam with hematology and endoscopy will help to determine if there is an underlying cause for the bleeding. This is most useful within 30 minutes of strenuous exercise as most of the blood will clear within 6 hours. Fluid can be gathered during this exam for further evaluation to confirm the presence of blood in the lower airways. A physical exam might uncover clues to how the cardiovascular has been effected by bleeding such as a tracheal obstruction or pneumonia. Hematology may reveal anemia or confirm the infection in the lungs as blood is an excellent media for bacteria to grow. The endoscopic exam will give the most information in the diagnosis of why your horse is bleeding. This exam may show that the bleeding is from an ethmoid hematoma or sinus problem, it may show left laryngeal hemiplegia, dorsal displacement of the soft palate, lymphoid hyperplasia, or many other abnormalities that might contribute to the pulmonary hemorrhage.

Previous diseases that affect the lungs such as pneumonia, pleuritis, and allergies will increase the likelihood that pulmonary bleeding will occur. Long term control of the disease is based on good husbandry and helping to keep the air as clean as possible by keeping good ventilation in stalls and trailers. Letting the horse drop his head and feeding on the ground after a haul will help clear debris from upper airways. Allergens can be minimized by keeping our hay and grain as dust free as possible but some horses require feeding a pelleted or extruded ration.

Treatment for EIPH involves REST to allow the lungs to recover and minimize the scarification that will predispose the effected athlete to further bleeds. When the horse goes back to the arena to train and compete often times the use of furosamide (a diuretic) and a bronchodilator such as Ventipulmin (clenbuterol) help to control the clinical bleeding. There are a number of other therapies such as estrogen, magnesium and vitamin K that are used but have little scientific basis. We must remember that it is the subclinical bleeding that will cause long term effects such as infections and scarring that will keep the athlete from performing to his ability. Always listen to your horse and if you have doubt about whether or not this is an issue contact your veterinarian.