

UNDERSTANDING AND MANAGING THE NEUROLOGIC FORM OF RHINO

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UNDERSTANDING AND MANAGING THE NEUROLOGIC FORM OF EHV-1 (RHINO)

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There has been another recent outbreak of the neurologic mutation of the common EHV-1 (equine herpes 1) virus. It is believed that the virus exposure began at the Western National Championships (Nat'l Cutting Horse Assoc) held in Ogden, Ut (April 29-May 8). Word of sick horses being hospitalized in California, Nevada and Canada have been reported, but as of Monday, May 16, the only confirmed cases have been in Colorado.

AND as of Monday evening, there are NO state borders closed....however, there are farms, counties and, even the veterinary school at Washington state, that are closed or quarantined. People need to STOP panicking and start thinking rationally to help prevent the spread of this disease. Be properly informed by direct information sources, rather than listening to rumor...especially if the people passing on the rumor themselves don't understand illness, disease and medicine.

There is a great deal of conflicting and outright incorrect information being circulated, so this note is to try and clarify information for horse owners. Additionally, recommendations made by the general veterinary community take on a pretty much a wait-and-see approach because there really isn't much more that they can say. That leaves holes for non-medically trained individuals to step in and offer home remedies that may or may not be effective. This note is meant to educate horse owners from a professional, integrative medicine perspective so they can make appropriate choices for their animals depending on their situations, locales and the status of their animals.

What is the neurologic herpes virus (EHV-1, rhino)?

The neurologic variant was first identified in a serious outbreak at a college in Ohio in 2003. Since then there have been numerous outbreaks in farms and show grounds ranging from the East Coast (CT, VA, FL), mid-East states (KY, OH) and California.

The majority of EHV infections in horses are EHV1 or 4. EHV1 is much more prevalent and more serious. There are three forms: respiratory, late term abortions in pregnant mares or, rarely, the neurological form. EHV4 only causes STRICTLY respiratory infections. The neurological form is the most serious and often progresses to recumbancy and death. Treatment is limited to supportive help and some direct anti-viral medication. Survivors may become chronic shedders of the virus.

Initial symptoms may include vague symptoms such as: fever, lack of appetite, lethargy to rapid onset of neurologic symptoms such as incoordination, paralysis and eventually an inability to stand. The incubation period is approx 3-7 days. Direct horse-to-horse contact is the most common exposure with fomites (hands, brushes, blankets) being another method of transmission. The virus can survive in the environment for days to a couple of weeks depending on environmental conditions.

Like any herpes virus, it can remain latent in the body until times of stress. The difference in perspective on addressing infectious disease between more conventional medical practitioners and more integrative ones is the emphasis in the body's role in preventing disease. Conventional medicine often has to rely on either vaccinations to prevent, and if that isn't an option, a more wait and see approach in order to have symptoms to treat. Integrative medicine has many nutritional, herbal and homeopathic options to help prevent and also to combine with standard treatments should symptoms appear.

My horse is vaccinated...isn't that enough? If not, should I vaccinate again?

There is controversial evidence about vaccinating in the face of an outbreak. The standard EHV1 probably does NOT stimulate cross-protection, although the jury is still out regarding the vaccine Calvenza. The following excerpts were taken from a presentation given at the American Association of Equine Practitioners meeting in December of 2005. The author is Dr. Julie Wilson, board-certified internal medicine equine veterinarian from the University of Minnesota's veterinary school. In addressing the question of vaccinating in the face of an outbreak, Dr. Wilson states,

"Conventional IM (intramuscular) vaccines usually require at least 1 wk for measurable humoral(antibody) responses to a booster or a second dose and similar time period in naive animals. This time lag has discouraged the use of vaccines in exposed animals, yet vaccination has been successful in protecting adjacent groups not yet exposed." (Wilson)

Also from Dr. Wilson's article,

"In a California outbreak of neurologic EHV1 infection, horses vaccinated with either type of vaccine within the previous year were 9–14 times more likely to develop neurologic signs than non-vaccinated horses. Because the vasculitis associated with the neurologic form is immune-mediated, vaccination after exposure raises concerns of producing a more severe disease. Consequently, vaccination in the face of a confirmed outbreak of EHV1 neurologic disease has been controversial."

And, in the 2003 Finley University (Ohio) outbreak, Dr. Stephen Reed (top equine neurologist from Ohio State) discovered that animals heavily vaccinated against EHV1/4 had both a higher morbidity (attack rate) and mortality (death rate) as compared to the horses that had no vaccinations at all.

What Can I Do to Protect My Horse?

First and foremost, you should avoid exposing your horse to areas where transmission with multiple, transient horses can occur. Remember that the virus can survive in the environment for several days and can be passed by mechanical objects like bridles, halters, brushes and blankets.

Second, remember that the animal's own immune system is the best protection around. Sometimes, it just needs a little help, especially if it has been worked too hard by vaccinating too frequently, feeding overly-processed chemical and mold-contaminated feeds and dealing with too hard of a training and work schedule. There are two ways to support an animal's immune system. You can diminish those things which can inhibit the immune system, such as stress and suppressing medications (steroids, non-steroidal anti-inflammatories, etc), and you can stimulate the immune system. It's not an either/or...to maximize your horses health, you need to do both.

MANAGING STRESS: There are many things to consider in managing your horse's stress load. If your horse is overwhelmed by trailering, travel or leaving his/her herd, try to avoid too much if there has been a potential exposure. Be aware of your training schedule and be sympathetic to when your horse might need a break....even if you don't (remember a baby horse less than 5 may be more susceptible to training stress than an older one). Also use caution in overusing Non-Steroidal Anti-Inflammatories (Bute, Banamine), as well as steroidal medications such as prednisone and dexamethasone, as these medications can inhibit the function of immune cells or cause additional inflammation and stress in the digestive system (location of 80% of the body's immune cells). Did you know that when you have a joint injected with a steroid it has been shown that some of that steroid does go systemic which may suppress immunity in the face of an infection? Last but not least, vaccinations create a transient drop in immunity within 3-10 days after vaccination. The more viruses that are combined into one vaccine, the greater the transient drop. If you are unsure whether you can skip or postpone a vaccination, Cornell University's diagnostic lab performs affordable and accurate vaccine antibody titers for West Nile, EEE and WEE which can allow you to determine whether your horse has adequate antibody levels to forego a vaccine, at least temporarily. As much as drug companies would have you (and your veterinarian) believe it, vaccine protocols should not be set in stone. Flexibility and common(?) sense are critical in the face of a potential crisis.

STIMULATING IMMUNITY: There are many ways to stimulate the immune system. While there are products on the market that advertise that they boost the immune system (EqStim, Zylexis), they are very general and crude ways of stimulating a system that is complex and specifically fine-tuned. In my experience of treating chronic immune deficiencies, these products can cause chronic health problems and immune sensitivities that can last long

past the initial immune need. It is much like an usher getting a smoker to put out his cigarette by yelling "FIRE" in a theater. While the smoker has now put out the offending burning object, there are now people running around screaming and causing undirected havoc and unintended damage all around. The best way to boost the immune system is by doing it from the ground floor, through nutrition. Give the body the raw materials and it can best decide how to use them for its needs. After that, you can use immune-supportive herbs that show specific ability to supplement and aid what is naturally there.

NUTRITIONAL SUPPLEMENTS (feeding with whole, clean, quality grains and foodstuffs is important – be cautious using overly processed feeds with ingredients made from by-products and damaged, rancid fats as these actually increase oxidative stress in the body):

1. Vitamin C (Pure C, Vitaflex or Citrus C/Q, Equilite): double the dose if there has been a recent, potential exposure. Vitamin C is a water-soluble antioxidant and may have other supportive effects not yet described.
2. Vitamin E (many sources including Kentucky Equine Research, Vitaflex, Platinum Performance): give a minimum of 4000 IU/day. Vitamin E, a fat-soluble antioxidant, has been shown to act as an anti-inflammatory to nerve tissue. If a virus tends to attack fatty-covered nerve tissue, why not give it as much help as possible with this vitamin?
3. Omega 3 fatty acids: flax seed (whole seeds, Platinum Performance, Missing Link): O-3 fatty acids have proven ability to support and boost the immune system as well as serve as the foundation for the production of the anti-inflammatory chemicals of the body.
4. Zinc: found in supportive levels in many hoof and skin supplements.
5. Carotenoids are the precursors to Vit A, a vitamin which boosts the activity of virus-fighting killer-T cells. What better excuse to feed your horse lots of carrots?

HERBS (WESTERN & CHINESE):

1. Ginseng (Korean/Panax or Siberian/Eleuthero): both of these types of ginseng are supportive to the adrenal glands (American Ginseng/Panax quinquefolius is weaker in regards to this function), which when stressed or exhausted, are unable to support the stress functions of the entire body. Excellent products which contain ginseng are APF or the now discontinued Ginzing by Equilite. Dr. Henneman bought all the remaining amounts of Ginzing from Equilite and we still have some left in the store. If you have a veterinarian practicing integrative medicine, especially if they have experience in Traditional Chinese Medicine, there are many herbal formulas containing ginseng (Panax or Eleuthero) that can be

custom blended. Ginseng is expensive and is often replaced with Codonopsis..also known as 'poor man's ginseng'; it still boosts immunity but only at higher dosages.

2. Echinacea: needs to be on-board at the time of exposure. Also, to be effective, it needs to be given at least 3 times a day. Human research has shown that Echinacea is more effective if given as a water extract (tea). Equinacea by Equilite is an excellent product.
3. Goldenseal: has antiviral activity but can only be used for short-term - no longer than 10 days.
4. Astragalus: this Chinese herb is extremely effective as an immune booster especially when it is combined with Ligustrum. Astragalus and Ligustrum formula has been used in Chinese Medicine for almost 1000 years. Today it has been shown to be very effective in treating HIV and Epstein-Barr virus and preventing secondary infections in people undergoing chemotherapy.
5. Gan Mao Ling: a traditional Chinese formula shown to be effective in preventing or reducing the symptoms of the rhino virus in humans.
6. Garlic: has been shown in several studies to increase the activity of virus-fighting lymphocytes. Since it is a 'warm' herb in the Chinese pharmacy, if you use garlic in your horse, make sure you combine it with other herbs that are a bit more cooling such as mint, elderberry or lemon balm. Equilite makes a great supplement called Garlic C which is balanced with other herbs to make it a neutral temperature formula.

HOMEOPATHICS: these don't work well as preventatives, but might be extremely effective in treatment of initial stages, especially combined with conventional supportive care. During the serious cholera epidemic of WWI, homeopathic hospitals in Philadelphia had a 16% mortality rate vs 60% for the general hospital population. OTC remedies can be purchased at Whole Foods, Good Earth and Dave's Health & Nutrition or online at Boiron and Hylands. Remedy potencies are 6C or 30C.

1. Belladonna: the best remedy for sudden onset of high fevers with neurologic symptoms.
2. Aconitum: sudden, vague fevers with lethargy
3. Gelsemium: initial stages of viral infections with neurologic symptoms and fatigue.
4. Rhino nosode: nosodes are remedies made from the discharges of diseased animals. Since they have been through a homeopathic dilution process (alcohol tincture then various dilutions with shaking in between), there is no longer anything toxic or infectious that is present. Rather, they are presenting an 'energetic' blueprint to the body on how to return to health, much like a conductor plays a note allowing a musician to tune to. (And before anyone gets all uptight about the whole homeopathy dilution, nothing there thing, please read the peer-reviewed, metanalysis research from Europe as well as from prominent physicists here in the US). I personally don't use many nosodes as a classically-trained homeopath, but some people report some effects with them. The problem with nosodes is that they need to be on-board at the time of exposure and, given too often, can themselves create some symptoms (although minor).

RESOURCES:

REFERENCES:

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3. Henninger R: Vet Immunol & Immunopathol 2006 May 15;111(1-2):3-13 Epub
4. Lunn P, Morley P: EHV-1 Information, Colorado State University, Dept Clinical Sciences, 2011
5. Wilson J: Vaccine Efficacy and Controversies, AAEP Annual Proceedings, 51: 409-420. 2005
6. Reed S: Data on Finley EHV1 Outbreak, personal communication with Dr. Julie Wilson. 2004

NUTRITIONAL/HERBAL SUPPLEMENTS:

1. Equilite: 800-942-LITE or www.equilite.com
2. Vitaflex: 800-848-2359 or www.vitaflex.com to find a distributor.
3. Platinum Performance: 800-553-2400 or www.platinumperformance.com
4. Auburn Labs (APF): 877-661-3505 or www.auburnlabs.com

HOMEOPATHIC REMEDIES:

1. Hyland's: 1-800-624-9659 or www.hylands.com
2. Natural Health Supply: (888) 689-1608 or www.a2zhomeopathy.com
3. Boiron: 800-BOIRON-1 or www.boironusa.com