PENINSULA EQUINE MEDICAL CENTER

the EQUINE Healthline

A Monthly Newsletter

May 2008

EQUIOXX ® (Firocoxib) adds to NSAID choices for therapy and USEF competition

Non-Steroidal Anti-Inflammatory Drugs (NSAIDS) are commonly utilized in equine medicine for their anti-inflammatory, antipyretic (fever treatment), and analgesic (pain relieving) effects. The biological mechanism of NSAIDS stems from their ability to interfere with the body's production of prostaglandins via the inhibition of COX (cyclooxygenase) activity. These effects upon COX are primarily therapeutically beneficial by the inhibition of the COX-2 (inducible inoform), however the typical adverse effects of NSAIDS such as gastrointestinal tract ulceration's are largely attributable to their inhibition of the 'good' COX-1 component. For years, the routine NSAIDS utilized both for therapy and permitted for showing have included: phenlybutazone, banamine, arquel, naproxen, and ketoprofen. All of the NSAIDS have significant inhibition of the 'good' COX-1 as well as their desired inhibition of the "bad" target COX-2 production. EQUIOXX ® manufactured by Merial, is the first highly selective COX-2 inhibitor to be introduced specifically for use in horses, and it has been shown in clinical studies to be very effective in controlling pain and inflammation associated with osteoarthritis and post-operative procedures without many of the previous side effects associated with other NSAIDS. Read the full artivcle which also contains dosage regimens on our website at http://www.peneq.com/equinehealthline/0508/.

In This Issue

Joint Disease

This month we will begin a 3-part series on Joint Disease. First we will begin by discussing the anatomy of the joints. Next we will discuss the causes of joint problems and how they present to horse owners. And finally, we will review the treatments and therapies available, how they work and how they are implemented. ***Go online to http://www.peneq.com/equinehealthline/0508/ to read the full article.***

Dr. Sinead Devine

Our feature staff member this month is Dr. Sinead Devine. Sinead has been with Peneq for four years now so most of you already know and love her. But do you really know Dr. Devine? Do you know of her affinity for chestnuts (the color not the crusty growth)? Do you know she's an avid polo player? Do you know Daisy? ***Go online to http://www.peneq.com/equinehealthline/0508/ to read all about the divine, Dr. Devine.***

Upcoming events

5-5 - Gilroy Gaits equestrian facility grand opening
5-23- 5-25 - Woodside Spring Horse Trials
6-19-6-29 - Bay Area Summer Festival - H/J
7-19-7-27 - Reining by the Bay

Go online to http://www.peneq.com/equinehealthline/0508/ for more information and links to each of these events.

From the office

Summer vacations are coming up! Is your horse prepared for you to be gone?

PEMC provides a means for you and those who take care of your horses to be prepared for unexpected emergencies. Complete the Absentee Owner Authorization Form online at http://www.peneq.com/forms/absenteeowner/.

Having this form on file with PEMC will allow you to be confident that everyone involved in your horse's health care is prepared for the unexpected. Some important informational aspects of this form include: listing authorized persons you've empowered to contact you or to make a decision if you are unavailable; if insured, who is your insurance carrier and policy information; and what are any specific criteria you might have which would guide our staff at PEMC to best provide your horse with emergency treatment. These forms are very helpful, whether problems which might arise are minor or major, in assuring owners that they can be absent or on vacation without worrying about unforeseen emergencies back at home! The staff at PEMC hope you all have a great and worry free summer of showing, vacationing, and otherwise enjoying both family and horses!

http://www.peneq.com - ph: 650.854.3162 = fx: 650.854.3658

Tip of the month

Changing feed should be done carefully!

Changing feed should be done carefully! With the increasing influences placed upon agricultural producers by decreased rainfall, consumer demand, and economics, there are going to be more fluctuations in hay availability ahead this year. As hay provides the largest component of your horse's diet, inconsistent hay availability can impact their health and performance. Changes in hay type (alfalfa, oat, grass, timothy, etc) should be introduced gradually over 10-14 days to allow for microbial changes (which aid in digestion) within the bowel to accommodate. Many hays are high in fiber (i.e. limited digestibility) and the horse relies upon its microbial flora in the bowel to convert fiber to a more utilizable form. Alfalfa hays also vary greatly in nutrient content depending upon season (i.e. # of cuttings previously in the season), with later cuttings being very leafy and less 'stemmy' which results in increased protein content and digestibility.

In addition to nutritional concerns, many horses have developed allergies to various hays or supplements. These allergies can become intermittent depending upon feed products available at the time.

Bottom Line: Nutritionists and horse owners agree that equine nutrition is more important and more complicated than the old slogan "he eats like a horse"! Therefore, among the many factors we consider in optimizing our horse's health and performance capabilities, an individualized nutritional program is a critical component!

Healthcare Guidelines

Muscle Disorders in Warmbloods & Draft Horses

By John Fling, DVM

Equine athletes who suffer from poor performance, painful back and hind quarter muscles, reluctance to collect or engage the hindquarters, poor rounding over fences, gait abnormalities that are difficult to define by standard diagnostics, and muscle atrophy may have a higher than normal probability for being candidates for "Polysaccharide Storage Myopathy" (PSSM).

How does PSSM affect your horse and what is it? PSSM is a common cause of exertional rhabdomyolysis (tying up), muscle soreness, and weakness. It is basically a defect in tissue metabolism which manifests in individual horses and has a genetic origin. Glycogen (the main form of storage of glucose) accumulates in abnormally high concentrations in the muscle fibers due to an enzyme defect. Research on the genetic basis of different forms of PSSM in Warmbloods and other specific breeds is ongoing.

How is PSSM Diagnosed? Horses exhibiting clinical signs of PSSM should have a thorough physical and lameness evaluation including the following:

Blood work for evaluation of their muscle enzymes and Vitamin E/Selenium levels

Muscle biopsy to exclude PSSM

A thermographic exam may hone in on "hot" spots in the affected muscle region, giving further evidence of an existing myopathy. This imaging modality may be restricted to cooler times of the year where environmental artifacts are minimized.

It is not uncommon to live with the status quo in poor performing horses that have "known" chronic osteoarthritis, but further investigation beyond the known joint/tendinous issues may lead to the knowledge that PSSM is a major factor affecting your horse.

What's next if your horse is diagnosed with PSSM? Owners need to be aware that any horse diagnosed with PSSM will always have an underlying predilection for muscle soreness.

The best that can be done is to manage horses in the most appropriate fashion to minimize clinical signs. With adherence to both diet and exercise recommendations, at least 80% of the horses show notable improvement in clinical signs, and many return to normal levels of performance.

There is, however, a wide range in the severity of clinical signs shown by horses with PSSM. Those horses with severe or recurrent clinical signs will require more stringent adherence to diet and exercise recommendations to regain muscle function. Researchers have demonstrated that 54% of Warmbloods showed improved clinical signs if diet and exercise modifications were followed.

Consistent low level exercise, and a diet that is low in starch (less than 20%), and high in fat (greater than 10%) were the two most important factors in mitigating PSSM.

More detailed explanations of diets, exercise programs, and possible genetic related studies can be found on our website at http://www.peneq.com/equinehealthline/0508/.