



EQUINE REPRODUCTION SVC

Equine Reproduction Embryo Recovery Embryo Transfer

ERS is the longest, continually in existence

Equine Embryo Transfer Company in the United States

Indications for Joint Injections

By Josh Donnell, DVM, and David Frisbie, DVM, DIPL. ACVS, ACVSMR

Joint injections have become a common procedure for treating equine athletes. In a 2009 survey of 831 AAEP veterinarians, over 50% said they performed joint injections on at least 10 horses a month and 14% said they injected more than 50 horses' joints per month.

Veterinarians might choose to inject a horse if the joints require direct treatment due to disease, inflammation, or pain. The most common joint disease is osteoarthritis (OA), which represents a group of disorders characterized by articular cartilage damage or deterioration and changes in the joint bones and soft tissues. Its cause is very complex, but simplistically OA is due to inflammation or trauma, which most commonly results from abnormal stresses or forces on the joint, including cyclic trauma or instability. Joint inflammation and articular damage can cause pain, which generally manifests as lameness in horses. Lameness continues to be the most common cause of poor performance and economic loss in horses.

As an owner you might ask why your horse needs to have multiple joints injected, sometimes as often as two to three times a year, to perform at his highest level. The short answer is the medication used in the joint injections most likely lessens the clinical signs rather than getting rid of OA altogether.

When treating any disease process, veterinarians use two types of therapies: disease-modifying drugs (DMD) and/or symptom-modifying drugs (SMD). For example, say you're suffering from a cough and a fever and your doctor determines a bacterial infection in your lungs is causing those clinical signs. He or she prescribes an anti-inflammatory (SMD) and cough syrup (SMD) to decrease the fever and cough so you feel better, along with an antibiotic (DMD) to kill the bacteria.

Treating OA is no different, but because it has multiple causes, unfortunately no completely disease-modifying OA drugs (DMOAD) exist, and surgical intervention is required in some cases. Take, for example, a horse with a small bone chip in his fetlock that is causing lameness. The veterinarian can administer joint injections as needed to decrease the pain, inflammation, and lameness. If the horse is only exercised occasionally (putting little stress and trauma on the joint), pain, inflammation, and lameness might not return. But if the horse is exercised heavily, the pain and inflammation will likely come back soon, and the veterinarian might need to administer another injection to decrease those signs or try other treatment methods, including surgery. Veterinarians typically base their decision to pursue surgical removal of bone chips on the horse's workload and frequency of joint injections, remembering that surgical intervention is the only thing that will actually decrease OA's progression.

Researchers continue to search for a drug that cures OA. Studies have shown that many treatments can help prevent further disease progression but not cure it. These include hyaluronic acid (HA), triamcinolone acetonide (corticosteroids), interleukin-1 receptor antagonist protein (IRAP), polysulfated glycosaminoglycan (Adequan), diclofenac (Surpass), and avocado and soybean unsaponifiable extract supplements. While these are all classified as DMDs because they can help prevent further disease progression, most are more potent as OA symptom-modifying drugs.

Veterinarians administer many of the drugs listed above orally, intravenously (IV), or intramuscularly (IM) and not intra-articularly (IA; joint injection). So why are joint injections, procedures that carry a higher risk of adverse effects when compared to oral, IM, or IV administration, so common? The short answer is that we can better control the concentration (amount) of drug that enters the joint by administering it directly into the joint. Medications given orally, IV, or IM enter the blood system and spread throughout the entire body and enter affected joints at much lower levels. Joints with OA can benefit from medication administered using these approaches, but at a much lower level than with joint injections. The more severe the OA or strenuous the exercise, the higher the drug concentration necessary to prevent further progression or treat the OA symptomatically.

In summary, joint injections are indicated in horses with OA that are expected to perform at their peak level with a high exercise volume. There is currently no cure for this condition. Current drugs approved to treat OA in horses prevent further progression and decrease clinical signs.

*** CLICK HERE ***

Current Articles & Research

Reproduction
Foil Disorders
Lameness

Check back often for new additions