NON-INVASIVE TREATMENT OF JOINT PROBLEMS (PART 1)

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JOINT DISEASE (OSTEOARTHRITIS) IS UBIQUITOUS IN ATHLETES, BOTH HUMAN AND ANIMAL. HORSES, WITH THEIR LARGE BODIES AND SPINDLY LEGS CAN BE PARTICULARLY PRONE TO THIS MALADY. VARIOUS TREATMENT MODALITIES ARE AVAILABLE TO HORSE OWNERS DEPENDING ON THE TYPE AND SEVERITY OF THE PROBLEM. HOWEVER, IN THE HORSE FIELD, WE SEEM TO EMBRACE THE MOST INVASIVE FORMS OF THERAPY FIRST THUS DEFYING LOGIC AND COMMON SENSE.

▲ *An infected hock joint with effusion secondary to a "bad" injection*

Although this is not a discussion of diagnostics, as with any disease, the fact is that an accurate diagnosis is essential. The old adage that "without an accurate diagnosis, all medicine is poison and all surgery is trauma" certainly rings true. It is especially true for joint disease in the horse. I say this now because the lack of a proper diagnosis is tied to and is compounding our overuse of joint injections.

Intra-articular (joint) injections are a legitimate form of therapy only when the disease process is understood and treatment is applied to a specific, individual problem. The one treatment for every problem "shotgun" approach is never a proper, acceptable medical practice. Unfortunately, in the equine we have turned it into an art form.

Famous guru "needle men" appear on the scene, both locally and from the far corners of the earth. They arrive with

▼ *Flushing an infected hock joint under general anesthesia*

some piece of "new" technology and their little bag of magic goodies (mostly syringes and cortisone) that supposedly contains the only treatment needed for whatever ails all of the horses they are going to encounter. They ply their mysterious trade with awe and reverence while extracting a hefty fee from the grateful horse owner. This scene plays out over and over again, much to the detriment of many horses.

These injections, more often than not, can end up being disappointing. Often they are just a temporary cover up until the next time a guru comes calling to the stable. Injection failures occur for a variety of reasons. One of the common ones has already been mentioned, misdiagnosis. The unseen problem is simply not being addressed by the injection. For example, it is a proven fact that about 85% of all front leg lameness of the horse is in the foot. Yet we repeatedly observe people injecting shoulders, which are probably less than 1% of all lameness's. This shows a clear lack of understanding. I have often observed not only the wrong joint being injected but even the wrong leg!

Another common reason for failure is poor technique. Even if the diagnosis is correct, the injected medication does not get into the joint and ends up getting deposited in the tissues around the joint. This is especially common with the smaller joints such as the coffin joint and the lower hocks.

Intra-articular injections, also referred to as infiltrations, can have a number of serious adverse effects. The most dreaded complication is infection. Infection in a joint or tendon sheath is often devastating to the horses' athletic career. It can even be fatal or lead to euthanasia. Most infections are simply due to lack of proper sterile technique. Even if the technique and utensils are sterile, injections should not be attempted in areas that are not clean or are dusty. Infections can manifest as a sudden, hot, painful, swollen joint or as a more low-level, insidious, but no less devastating, presentation. A rapid and aggressive course of action, including multiple joint lavages and high level antibiotics, must be undertaken to save the horses' life should infection occur. Even if the treatment is successful the costs can be huge.

Before covering specific treatments, we should talk about the best approach of all, prevention. Preventing a problem or disease is always a million times more preferable to trying to treat one. Joint disease is certainly no exception to this. It can start as early as buying a horse that has good solid bone and good confirmation for the horses intended use. Particular attention should be paid to the shape and quality of the hooves since that is the horse's foundation. Who would buy a beautiful home with a cracked and crumbling foundation? Pre-purchase examinations are important and it is not just about pretty x-rays. A total evaluation of the animal is essential with emphasis on its intended use.

A large percentage of equine orthopedic problems could be avoided just by proper trimming and shoeing. Sometimes this is difficult but every effort should be made to maintain good foot balance and alignment. Hooves need to be evaluated and trimmed on a regular schedule. Working surfaces are also important. They should provide good, non-slip footing and be neither too hard nor too deep. Turns on racetracks should be adequately banked. For jumpers, the take-off area is important but the landing area is even more important.

Protective gear such as bandages, splint boots and sports medicine boots can be excellent preventatives. It is important that they be used regularly and that they fit properly. They are not of much use inside the tack trunk. Proper physical conditioning is essential not only for peak performance but it also goes a long way in preventing injuries. Fit individuals are far less likely to do things like stumble or make other moves that can cause injury. They know their jobs and can protect themselves. On the other end of the spectrum, working an animal to the point of fatigue can also predispose them to serious injury. Training and conditioning takes planning, time and patients. It is part art and part science and must be tailored to the individual. All too often horses are put into competitions that are just not ready for it with sometimes cataclysmic results.

▼ *Coffin joint injection using a spinal needle to minimize infection potential*