A Look at Therapeutic Horseshoeing

A farrier is part of a team that also includes the horse, owner, trainer, grooms, and veterinarian. This team approach is never more necessary than when a horse has an injury or disease.

Applying shoes to the feet of horses has been a common practice for more than 1,000 years, while the first horseshoes may have been used as much as 2,500 years ago. Generally, the feet of domesticated horses are trimmed to balance and reduce excessive hoof length, and, in many cases, horseshoes are applied as an aid for traction, protection, and to reduce wear of the hoof wall. Therapeutic horseshoeing, therapeutic farriery, corrective shoeing, and podiatry are some of the terms that have been used to describe the care of a horse's hoof to address abnormal conditions beyond this common practice. Since many farriers use various shoes, pads, and application methods, therapeutic shoeing is practiced by most farriers at various levels. It could also be argued that basic horse shoeing is therapeutic in nature.

There are various certifications and endorsements that farriers can acquire from a handful of farrier organizations, indicating specialty or ability. These involve additional training, apprenticeships, case studies, and testing. Additionally, there are veterinarians who are...
trained farriers with experience and specialty achieved beyond the scope of what is provided in vet school. Depending on client base, geography, experience, and preference, veterinarians and farriers often specialize in certain disciplines or breeds.

As much as 80% of equine forelimb lameness is due to problems involving the feet. Some of the usual conditions where therapeutic horseshoeing is utilized include laminitis and founder, navicular disease, hoof cracks and defects, coffin bone injuries or disease, infections such as canker, white line disease and abscesses.

Soft tissue injuries involving tendons and ligaments as well as diseases involving bone and joints can also be addressed with modulation of the foot even though these injuries may be located further up the leg. For example, shoeing applications to reduce strain on a suspensory ligament can greatly improve healing and comfort for suspensory desmitis.

Conformational abnormalities may be accommodated with proper attention. Each breed and discipline also has a set of nuances and problems specific to the group.

The farrier is part of a team that also includes the horse, owner, trainer, grooms, and veterinarian. This team approach is never more evident than when a horse has an injury or disease. Occasionally, multiple farriers or veterinarians will work together on a case via referral or consultation. It is important to note that an accurate diagnosis is essential for successful treatment.

Shoeing has evolved from the use of standard steel “keg” horseshoes. Manufacturing technology has brought a multitude of therapeutic shoes to market. A farrier can also modify pre-made or build shoes from scratch to custom fit each foot and need. In addition to steel and aluminum; plastics, fabrics, composites, epoxy and acrylic adhesives, and even wood is often
utilized. Pads and impression support materials have evolved, offering different application methods, hardness, and even incorporated medications tailored to the needs at hand. Although craftsmanship and skill in building a foot appliance is important, the knowledge of how therapy will affect the horse (positive or negative) in every aspect is imperative. An example is how a wide-webbed shoe with a pad and rolled toe and branches might benefit a horse with navicular pain but will reduce traction and seal a sole from air causing other concerns that may result in different problems.

Therapeutic goals may include protection of internal or external injuries and wounds, stabilization of the hoof capsule, orthotic support, modification of static and dynamic biomechanics of the foot-ground interface, and protection or support of structures above the hoof. To properly address the needs of the condition and the horse, one must have an intimate understanding of the anatomic, physiologic and biomechanical relationships of the foot and leg. There should be an understanding of the disease process at hand. One application for a certain problem may be detrimental for another. This is the main reason that a farrier and veterinarian are most efficient when they have a good working relationship.

CONTACT—Josh Zacharias, DVM, MS, DACVS, DACVSMR —zachariasdvm@gmail.com— Countryside Large Animal Veterinary Service, Greeley, Colorado

This is an excerpt from Equine Disease Quarterly, Volume 29, Number 3, funded by underwriters at Lloyd’s, London.