Diagnosis and Treatment of Chronic Back Pain in Horses

Benson B. Martin, VMD and Alan Klide, VMD

The diagnosis of chronic back pain in horses can often be difficult. It is often a diagnosis of exclusion. Horses may have concurrent problems. Several methods of treatment have been successful in treating chronic back pain. The emphasis in this paper is to present the use of acupuncture in the treatment of chronic back pain. In the majority of horses, horses were treated in nine different acupuncture points once weekly for 8 weeks. Of 350 horses treated with acupuncture, 263 horses (75%) were able to perform at an acceptable level after treatment. We feel that acupuncture may be a useful form of treatment for chronic back pain in horses. Authors' addresses: Dept. of Clinical Studies, New Bolton Center, University of Pennsylvania, 382 West Street Rd., Kennett Square, PA 19348-1692 (Martin) and University of Pennsylvania, School of Veterinary Medicine, Philadelphia, PA 19104 (Klide). © 1997 AAEP.

1. Introduction
Poor performance caused by chronic back pain is common in many breeds of horses performing many types of work. Determining primary back pain and localizing the pain are not difficult; however, it is difficult to know the exact cause of pain. In horses, most treatments for chronic back pain are ineffective or only effective for a few weeks. Acupuncture is a useful treatment for chronic back pain in horses. The purpose of the study reported here was to determine the responses of a large number of horses with chronic back pain to various methods of acupuncture treatment.

2. Materials and Methods
A. Horses
Three hundred and fifty horses were referred as potential candidates for acupuncture treatment. These horses could not train or perform acceptably. The presumed cause for their poor performance was primary back pain. Horses were randomly assigned by the authors to one of four treatment groups: (1) laser stimulation of acupuncture points, (2) traditional needling of acupuncture points, (3) injection of saline solution alone, or (4) injection of saline solution and methylprednisolone acetate. All treatments were near or in acupuncture points. These assignments were based on when the horses were referred to our hospital.

B. Diagnosis
Diagnosis of back pain was based on history, physical findings, performance or change in performance, or radiographic interpretation. The first three criteria were most important and were always used. Radiography alone was the least effective method of diagnosis of primary back pain. Signs of back pain include sinking away from the saddle when the rider mounted; sinking when a saddle was placed on the...
horses' back, or when a girth was tightened; reluctance to canter or trot; reluctance to take and maintain one lead of the canter; reluctance to change leads; or reluctance to back. Other clinical signs of back pain include hindlimb lameness without other obvious causes for hindlimb lameness, refusal to jump, changing the style of jumping, refusing to break acceptably from the starting gate, vigorous tail movements, grinding of the teeth, dragging one or more hindfeet, and perhaps most importantly, a history of poor or decreased performance.

C. Acupuncture Treatments

Horses were treated by using one of the four aforementioned treatment methods. Most horses were treated once weekly for 8 weeks. The acupuncture points used were T10, TLR, T2, T4, and HL10. These points have been previously described.6 T10 is equivalent to bladder 48, TLR is equivalent to bladder 23, T2 is equivalent to bai hui, T4 is equivalent to bladder 27, and HL10 is equivalent to bladder 30. The bladder points have also been described.7

D. Evaluation

Horses were evaluated before, during, and after treatment. An evaluation was independently performed by the investigators, the rider, the trainer, and the referring veterinarian. Treatment results were classified as improvement of clinical back pain or no change. We determined the horse to have an alleviation of clinical signs of back pain if three criteria were met: (a) if the examination did not reveal improvement in clinical signs associated with back pain, (b) if the horse was able to perform normally for its intended use, and (c) if the owner thought the performance of the horse was acceptable or normal. The horse was determined to have had no change in its condition if at least one of the three people evaluating the horse believed that it had not improved enough to fulfill the criteria for classification of improvement of clinical signs of back pain and performance. Of 13 group 1 horses that had improvement in back pain, nine were still alive 8 years after their last treatment. Of these nine, seven were still performing their sport, one was being used as a breeding animal, and one could not be evaluated. One year after the last treatment, nine of the 11 group 2 horses had no back pain and were still performing. Of 289 group 3 horses that had improvement of clinical signs of back pain, 20 died during competition and 269 were still alive 6 months after their last treatment. Of these 269 horses, 237 horses were still performing their sport. Of these 237 horses, 60 (25%) needed to be retreated within 3 months. Of the eight group 4 horses that had alleviation of back pain, all are alive and three are still performing their sport. In summary, of 350 horses treated with acupuncture, 263 horses (75%) were able to perform at an acceptable level after treatment.

3. Discussion

Traditional needling, laser stimulation of acupuncture points, and the injection of saline solution near acupuncture points were equally effective in the treatment of horses with chronic back pain. A combination of methylprednisolone acetate and sterile saline was less effective because these horses were treated just once. Further evaluation of this method may be beneficial. The finding that some horses had increased pain the day after treatment is consistent with our observations. Approximately 20% of our equine patients with chronic pain that were treated with acupuncture experienced the effect after each of the first few treatments. Horses that had increased pain after the first few treatments ultimately had improvement or alleviation of pain after treatment. Similar results in horses given previous treatments and those not given previous treatments indicate that acupuncture was useful not only in horses not given previous treatments but also in horses given previous treatments that were only effective for a short duration.

It is important to understand that acupuncture therapy is not a panacea. It must be used in conjunction with a careful physical examination and lameness examination. In all the above horses, these examinations were performed. Any lameness problem was addressed in conjunction with other concurrent problems including back pain. Acupuncture therapy is a useful adjunct to the practicing veterinarian's armamentarium.

4. Conclusion

We recommend that horses receive weekly treatments for 8 weeks, that they stay in their normal training regime, and that they be exercised on the day of treatment. Some horses improved after one treatment, some horses improved after the second to fourth treatment, and 75% of the horses improved after five to eight treatments. Various methods of acupuncture treatment appear to be clinically useful for treating chronic back pain in horses.

References