Ethyl Alcohol for Chemical Arthrodesis of the Proximal Interphalangeal Joint

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Ethyl alcohol can be used for chemical arthrodesis of the proximal interphalangeal joint in horses. Author’s address: Veterinary Clinical Sciences, College of Veterinary Medicine, Iowa State University, Ames, Iowa 50010; e-mail: scaston@iastate.edu. © 2010 AAEP.

1. Introduction
Osteoarthritis of the proximal interphalangeal joint affects horses of many breeds and disciplines and causes chronic, progressive lameness. If treatment modalities are not effective or cease to be effective, arthrodesis of the joint can return the horse to use or improve comfort. If surgical arthrodesis is not an option, chemical arthrodesis can be an alternative. Intra-articular injection of ethyl alcohol has been reported to be effective for treating horses with distal tarsal joint osteoarthritis.

2. Materials and Methods
Clinical cases with a diagnosis of lameness localized to the pastern joint and exhibiting radiographic evidence of pastern osteoarthritis were included. Additionally, a follow-up time of 6 mo or more was required for inclusion. A successful outcome was considered to be a return to previous performance or intended use and owner satisfaction.

3. Results
Treatment was considered successful in 19 of 21 cases (90%). Mean lameness grade before treatment was 3.1 of 5. Average time until horses returned to work or were considered sound was 8 mo. Three horses had complications, two of which were mild and transient.

4. Discussion
This study reports the technique, success rate, outcome, and complications associated with the use of ethyl alcohol injections for arthrodesis of the proximal interphalangeal joint in horses with osteoarthritis. The use of ethyl alcohol injections for arthrodesis of the proximal interphalangeal joint seems to be an effective, reasonably easy, and relatively pain-free procedure.