Deep Digital Flexor Tendon Lesions in the Pastern Are Associated with the Presence of Distal Tendinopathy

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Deep digital flexor tendon (DDFT) injuries, particularly core lesions, in the pastern are associated with additional tendinopathy within the hoof capsule. Further assessment of the extent of injury is indicated when pastern lesions are found. Authors’ address: Colorado State University, College of Veterinary Medicine, 300 West Drake Road, Fort Collins, CO 80523; e-mails: elizabeth.acutt@colostate.edu; myra.barrett@colostate.edu. *Corresponding author; †presenting author. © 2021 AAEP.

1. Introduction
Correct diagnosis of DDFT lesions allows targeted treatment and improved prognostication. This study aims to assess the prevalence of, and characterize, DDFT lesions in the pastern with concurrent tendon injury distally. It is hypothesized that tendinopathy, particularly core lesions, in the pastern will be associated with distal lesions of the DDFT.

2. Materials and Methods
Cases with DDFT lesions in the pastern with magnetic resonance imaging (MRI) or ultrasound of the foot were evaluated retrospectively. Lesion location and type were recorded. Odds ratios were calculated to determine associations between more distal tendinopathy and the presence of different DDFT pastern lesion types.

3. Results
Thirty-four MRI scans of 33 horses and 64 ultrasound exams of 58 horses were analyzed. Lesion location and type were recorded. Distal DDFT lesions were found in 75% of total cases of pastern DDF tendinopathy and in 97% of cases with core lesions. A core lesion in the pastern was significantly more likely (OR = 20.7, 95% CI [2.2, 191.0], p = 0.008) to be associated with injury in the foot than other types of pastern lesion.

4. Discussion
Pathologic changes in the DDFT, particularly core lesions, are typically not an isolated finding. Further imaging is optimal to characterize the extent of tendinopathy to direct appropriate treatment and improve prognostication.

Research Abstract—for more information, contact the corresponding author

NOTES
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Declaration of Ethics
The Authors have adhered to the Principles of Veterinary Medical Ethics of the AVMA.