Laser fibrotomy followed by early postoperative exercise reduces gait abnormality and lameness associated with fibrotic myopathy. This is a viable therapy for fibrotic myopathy especially when multiple stifle flexor muscles are affected. Authors' addresses: Department of Veterinary Medicine and Surgery, College of Veterinary Medicine, Columbia, MO 65201 (Lopes, Wilson, Reed, Keegan); and Weems and Stephens Equine Hospital, Aubrey, TX 76227 (Janicek); e-mail: keegank@missouri.edu. *Corresponding author; †Presenting author. © 2012 AAEP.

1. Introduction
Fibrotic myopathy (FM) can cause incapacitating gait abnormalities. Bistoury fibrotomy followed by early postoperative exercise is considered the best treatment for FM when several muscles are involved but cannot resolve the gait abnormality in all horses. Assessment of the effectiveness of surgical treatments for FM has been limited to subjective evaluation. The aim of this study was to objectively assess gait abnormalities associated with FM before and after laser fibrotomy followed by controlled exercise started 1 day after surgery.

2. Materials and Methods
Kinematic evaluation of horses with FM walking and trotting on a treadmill was used to investigate hind feet trajectories (n = 8) and lameness (n = 5) before and after laser fibrotomy. Hoof flight trajectory length (HFTL), relative protraction length (%PL), maximum hoof height during swing (MXHH), hoof height at the end of protraction (HHpro), and retraction (HHret) were measured, and differences between FM-affected and nonaffected limbs were calculated. Lameness was quantified by measuring maximum and minimum pelvic height differences between right and left halves of the stride.

3. Results and Discussion
Before surgery, the foot of the FM-affected limb had abnormal trajectories characterized as increased HFTL, MXHH, and HHpro and decreased %PL and HHret; the five horses objectively evaluated for lameness were lame in the FM-affected limb. Immedi-
ately after surgery, the difference between affected and nonaffected limbs decreased for HFTL, %PL, and HH$_{pro}$. Six to 11 weeks after surgery, the HFTL difference increased but was still smaller than before surgery, which was interpreted as partial recurrence of the gait abnormality; all horses objectively evaluated for lameness were either improved ($n = 1$) or not lame ($n = 4$) in the previously affected, operated limb.

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