

Postoperative Management

Bandages should be maintained for a minimum of 6 weeks to minimize swelling and prevent contamination of the surgery site. The horse is administered phenylbutazone for pain as needed and confined to the stall, wearing a heel extension shoes for 6 to 8 weeks. For midmetacarpal tenotomy, this type of shoe seems to be less necessary.⁹⁵

A mild degree of hyperextension of the distal interphalangeal joint occurs, but it is usually self-limiting.⁹² Most horses show an initial improvement within 2 to 3 days of surgery. After tenotomy in either location, flexor support for the distal phalanx should develop through attachments of the distal tendon end by 6 to 8 weeks after surgery, and maintenance of a normal hoof-pastern axis without extended heels should be possible.⁹⁷ Tension relief after tenotomy appears to last for several months.⁹⁶

Complications directly related to the surgery are rare but can include incision infection and postoperative pain. Chronic pain can result from overloading the SDF tendon before healing, osteoarthritis of the distal interphalangeal joint, or chronic infection of the digit.⁹⁶ A flexural deformity of the metacarpophalangeal joint (dorsiflexion) can develop from chronic pain, resulting in an inability to bear weight on the limb and contracture of scar tissue at the tenotomy site.

Prognosis

In a study of 13 horses with chronic laminitis and 12 to 36 degrees of rotation of the distal phalanx from the dorsal hoof wall, the first clinical improvement was noted by the third or fourth day after midpastern tenotomy of the DDF tendon. At the end of 2 weeks after surgery, the horses continued to improve and were willing to walk without the benefit of nerve blocks. Eventually, five horses could be lightly ridden, seven horses were pasture sound, and one horse was euthanized.⁹⁷ In another report of DDF tendon transection at the midmetacarpal level in 20 horses with severe acute or chronic laminitis unresponsive to conventional treatment, 11 patients survived less than 1 month after surgery and six horses survived longer than 6 months. Three horses remained lame, and no horse returned to athletic performance.⁹⁸

One study evaluating the effect of DDF tenotomy as a treatment for chronic laminitis in 35 horses (midmetacarpal, 30 horses; midpastern, 5 horses) found that 27 horses (77%) were alive 6 months after surgery and 19 of 32 (59%) horses were alive for at least 2 years.⁹⁹ Bodyweight at the time of surgery and the degree of distal phalangeal rotation had no effect on the 2-year survival. Of the horses in this study, 10 became sound enough for light riding, and there was no correlation between the Obel grade of lameness, the degree of rotation, and the ability to be ridden.

Another study evaluating the effect of DDF tenotomy in the midcarpal region of nine horses with severe laminitis associated with complications such as intense pain, rotation more than 15 degrees, perforation of the sole, or evidence of infection of the sole or distal phalanx found an initial survival rate of 100%.¹⁰⁰ Six of the nine horses survived more than 21 months, and the other three were convalescing at the time the report was published. Four of the nine horses could be used for pleasure riding.

Although the recent studies report surprisingly good results, it should not be forgotten that these horses require prolonged and expensive supportive care and often additional surgical interventions. They suffer months of crippling foot pain and recumbency, and everyone involved must be dedicated to the patient.

