Owner Survey on Cunean Tenectomy as a Treatment for Bone Spavin in Performance Horses

Timothy G. Eastman, DVM, MPVM; Thomas C. Bohanon, DVM, MS, Dipl. ACVS; G. Marvin Beeman, DVM; and Terry D. Swanson, DVM

Based on a survey of 216 owners of 285 performance horses, standing cunean tenectomy in the horse is an effective treatment for osteoarthrosis of the distal tarsal joints (bone spavin). Authors’ address: Littleton Large Animal Clinic, 8025 South Santa Fe Dr., Littleton, CO 80120. © 1997 AAEP.

1. Introduction

Bone spavin is a common cause of lameness in horses. Medical management by intra-articular injection is of variable efficacy and often requires multiple treatments. More aggressive therapies include surgical or chemical arthrodesis.1,2 Cunean tenectomy has been recommended for the treatment of bone spavin, but reports on the efficacy of this treatment are sparse. One report evaluating Standardbreds with cunean bursitis-tarsitis compared cunean tenectomy to conservative therapy.3 A Dutch study evaluated the performance of horses with bone spavin treated by cunean tenectomy, the Wamberg modification of the procedure, or left untreated.4

The purpose of this study is to document by written questionnaire the owner’s assessment of cunean tenectomy as a treatment for bone spavin.

2. Materials and Methods

Files on all horses who received cunean tenectomy (N = 285) between January 1, 1987 and December 31, 1996 were retrieved. Breed distribution was 76 Quarter Horses, 42 Thoroughbreds, and 23 Warmbloods, with other breeds represented in small numbers. There were 104 geldings, 26 mares, and five stallions. Forty-nine were hunter-jumpers, 29 were dressage horses, 30 were barrel racers, nine were pleasure horses, six were show horses, and six were race horses. The average age at surgery was 8.7 years (range 3–18), and the average duration of lameness before presentation was 9.4 weeks (range 1–36).

Cunean tenectomy was performed with mild sedation and local anesthesia. A vertical incision was used and 1.5–2 cm of tendon was removed. Aftercare consisted of stall rest for 12 days with limited daily hand walking. Hand walking was increased gradually from 12 to 21 days postoperatively and included walking over poles. Riding over poles at a walk and trot was started 3 weeks postoperatively. Full work resumed at 6 weeks.

Horses were diagnosed with bone spavin based on some combination of clinical signs, response to intra-articular anesthesia, and radiographic changes. Horses treated for other lameness at the time of surgery were excluded. Owners were questioned on type of and response to presurgical and postsurgical treatments. Changes in performance, attitude, and lameness were also investigated.
3. Results

Sixty-one percent (175/285) of questionnaires were completed and returned. Sixty-four percent (79/123) of horses had prior medical therapy including combinations of systemic and intra-articular medications. Forty-five percent (36/80) of owners felt they got excellent or good results from prior treatment, and 55% (44/80) reported fair to poor satisfaction with prior treatments.

Owner satisfaction with cunean tenectomy was described as excellent by 62% (102/163), good by 21% (34/163), fair by 8% (13/163), and poor by 9% (14/163). Performance ability of the horse following the surgery improved in 80% (97/122), was unchanged in 18% (23/122), and worse in 1% (2/122). Eighty-three percent (114/138) of owners said they would have the procedure performed again, 9% (13/138) felt they would not, and 8% (11/138) were unsure. Improvement was noticed on an average of 8 weeks (range 2–48) after surgery. Medical treatment was required in 30% (35/116) of horses following the surgery.

4. Discussion

Results of this study suggest that, based on owner perception, lameness resolves within 8 weeks following cunean tenectomy in most horses. Most owners are satisfied with cunean tenectomy as a treatment for bone spavin. Soundness following chemical and surgical arthrodesis has similar success but requires more convalescence, is more invasive, and is more expensive.1,2

Shearing or rotational forces between the distal tarsal bones may be a contributing factor to bone spavin.3 Because of the cunean tendon’s oblique path over the dorsomedial aspect of the distal tarsus, tenectomy may reduce rotational and shearing forces during contraction of the tibialis cranialis muscle, resulting in less pain and improved performance.

Gabel reported that cunean tenectomy in Standardbreds for cunean bursitis–tarsitis was no different than conservative management, perhaps because of persistent inflammation in the distal hock joints and scar tissue that appeared to re-establish the tendon.3 Our postmortem examinations show retraction of the tendon and reattachment by a fibrous adhesion to the dorsal aspect of the tarsus. The cunean bursa appeared normal at surgery in the majority of our horses. A Dutch paper found cunean tenectomy superior to no treatment at returning horses to racing.4

The results of this study are based on owner perception and may contain biases inherent with this method of evaluation. Further evaluation of cunean tenectomy by using objective criteria is warranted. However, most owners and trainers of these horses were experienced horse people and the findings correspond to our clinical impression. Cunean tenectomy appears to be a valid therapeutic option for the treatment of bone spavin.

References