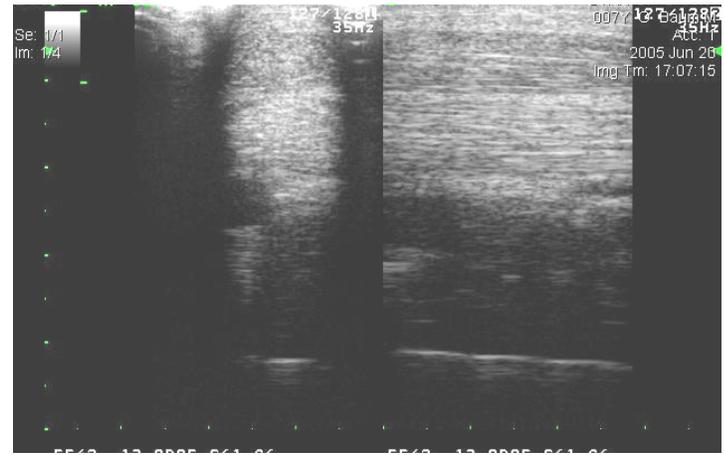


Case 040505-01: Seven-Year Old Reining Paint Horse Superficial Digital Flexor Tendonitis

A seven-year-old Paint reining horse was presented for severe acute lameness in both front limbs. On examination, the animal was a grade 2/5 lame on the left front and 3/5 on the right front. An ultrasound evaluation determined that significant injury had occurred to the distal 1/3 of the left front and to the mid-portion of the right front superficial digital flexor tendons (SDF). There was a loss of echogenicity of the SDF in both limbs with the right SDF having the more severe injury. (Fig 1). Based on ultrasound evaluation, a diagnosis of acute tendonitis was made. With the lack of linear fiber pattern and the extent of injury in both SDF, the prognosis for returning to prior performance level was guarded.



**Figure 1: SDFT
February 23, 2005**



**Figure 2: SDFT
June 20, 2005**

Initially, this horse owner elected conservative therapy. Two months after injury there was no change in the u/s appearance; the owners expressed interest at this time for returning their horse to full work and the staff veterinarian decided to use regenerative cell therapy. Their hope was to reduce the risk of scarring and to optimize the strength of the tendons. A 17.7 gram sample of subcutaneous fat was removed from the area lateral to the tail head and submitted to Vet-Stem, Inc. for stem and regenerative cell recovery. The veterinarian utilized ultrasound guidance and injected both the left and right front SDF tendons with harvested cells. A therapeutic dosage of 3.2 million regenerative cells contained in a 2 ml volume was administered to each tendon. The owner also elected to have superior check desmotomies performed at the same time to help prevent future injury to the SDF tendons.

Following the regenerative cell injection, a rehabilitation program was instituted. At the two month recheck exam, there was no pain elicited on palpation and no lameness was detected. An ultrasound performed at the two months post-injection exam showed significant improvement in the appearance of both the left as well as the more severely affected right front SDF (Fig 2). Specifically, there was filling in of the lesion as well as a more normal pattern of the fibers. The owner was instructed to discontinue working the horse under saddle at this time in order to limit strain and allow the tendons to heal.

This reining horse continued to steadily improve after regenerative cell therapy was administered and has now returned to a full work schedule only 8 months after therapy.