

# Evaluation of the safety and efficacy of the ACell Vet™UBM powder as a treatment for musculotendinous and/or ligamentous repair in equine patients

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## Results Summary

Horses with evidence of a focal/localized tendon or ligament leg injury, confirmed and documented with diagnostic ultrasound, were entered into this study. The types of lesions treated included Suspensory Ligament (Chronic Desmitis, Tear, Core Lesion), and Superficial Digital Flexor Tendon (Tear, Diffuse, Core Lesion). 29 horses were randomly placed in two groups and were evaluated by the attending veterinarian for a total of 12 weeks:

Group 1: 20 horses received conventional treatment (shockwave, hydrotherapy, support, poultice, NSAIDS, activity/exercise) as prescribed by the attending veterinarian *plus* 0.2gms of the ACell Vet powder suspended in 6 ml of sterile saline injected into the lesion.

Group 2: 9 horses received only conventional treatment as prescribed by the attending veterinarian.

	<b>Conventional Therapy <i>plus</i> ACell Vet Powder (20 cases)</b>	<b>Conventional Therapy (9 cases)</b>
<b>Location of Lesion</b>		
Front Leg	85.00%	56.00%
Hind Leg	15.00%	44.00%
<b>Type of Lesion</b>		
Suspensory Ligament	50.00%	56.00%
Superficial Digital Flexor Tendon	50.00%	44.00%
<b>Lesion Size (by Ultrasound Measurement)</b>	Average: 2.95 cm <sup>2</sup> Range of lesions: 0.56 – 6.32 cm <sup>2</sup>	Average: 2.95 cm <sup>2</sup> Range of lesions: 0.69 – 5.06 cm <sup>2</sup>
<b>Ultrasound Imaging</b>		
5 days	Lesion filling, no fiber formation	Lesion filling, no fiber formation
28 days	Lesion filling, presence of fluid type material and the appearance of fiber formation	Lesion filling, no fiber formation
56 days	Lesion filling and appearance of fiber formation in a linear pattern	Lesion filling, no fiber formation
84 days	Increased fiber formation	Lesion filled, no fiber formation
<b>Animal Activity (days)</b>		
1 - 13	Hand walking 10 minutes	Stall and pasture rest
14 – 21	15-20 minutes of walking or treadmill walking and trotting	Limited activity, pasture rest
22 – 56	Light jogging and increased walking under tack	Hand walking, pasture rest
57 - 84	All horses are continuing to have exercise increased and are beginning conditioning workouts.	Of the 9 horses in the group, the 6 recovering horses are still convalescing with hand walking and pasture rest. 3 horses have stopped recovering and 1 horse re-injured its leg once working under tack was begun.

IN SUMMARY, ALL HORSES TREATED WITH THE ACELL VET POWDER SHOWED INCREASED LINEAR FIBER PATTERN FORMATION BEGINNING AT 28 - 56 DAYS. THE HORSES TREATED WITH JUST CONVENTIONAL THERAPIES DID NOT SHOW THIS CONSTRUCTIVE REMODELING. IN LESS THAN THREE MONTHS ALL HORSES TREATED WITH ACELL VET POWDER HAD RESUMED ACTIVE COMPETITION RELATED TRAINING, WHILE HORSES TREATED WITH CONVENTIONAL THERAPIES WERE STILL CONVALESCING AND NONE HAD APPROACHED A POINT WHERE TRAINING COULD BE COMMENCED.