

Mandel

Stewards Summary:

Mandel broke a step slow and was bumped and jostled from both sides at the start. He quickly made the lead on the backside, began to be passed by horses in the turn while on the rail, and appeared to have a serious injury to his left foreleg while quickly pulled up near the 3/16 pole.

The horse was claimed by Jay F. Young. 16 claims had been submitted for Mandel

Jockey: Albin Jimenez said that the horse warmed up fine in the post parade and he had no concern about his soundness.

Trainer: The horse was shipped to Matt Kordenbrock at Oaklawn Park in early February and had previously raced for his owners at Laurel Park. He readily provided the veterinary records when requested, both from the veterinarian in Arkansas, and the Kentucky veterinarian. Kordenbrock did not have any specific concerns regarding the soundness of Mandel.

Veterinary Review:

- This 4-year-old gelding, trained by Matt Kordenbrock and owned by Robert O'Hara, Jr. and Gwyneth Gower, sustained an injury to his left forelimb at Keeneland on April 10, 2019 in the 8th race, \$25,000 Open Claiming (4 yo and up) at 6 furlongs over a fast dirt surface. Purse to claim ratio was 1.3. The injury manifested near the 3/16 pole.
- KHRC veterinarians administered a sedative/analgesic and applied external stabilization to the affected limb to minimize further injury and for transport back to the barn. Blood was collected by KHRC veterinarians for submission to Industrial Laboratories for analysis.
- The gelding was euthanized following further evaluation by the trainer's veterinarian who confirmed a diagnosis of biaxial comminuted sesamoid fractures.
- The body was transported to the University of Kentucky Veterinary Diagnostic Laboratory and submitted for necropsy.

Findings:

- Review of pre-race exam findings and exam history

The Case horse's pre-race exam findings were reviewed and compared to those of the unaffected cohorts (Controls) in the same race. The Case horse's exam findings were consistent over time. There were no changes noted in gait or results of palpation and passive flexion over a series of exams. When compared to Control horses, the Case horse was unremarkable with respect to nature and extent of physical findings.

- Review of 60-day treatment records

Mandel underwent endoscopic examinations following breezing (2/6) and racing (2/26). This is appropriate to assessing airway health and specifically the occurrence, and (to the extent it occurred) the severity of Exercise Induced Pulmonary Hemorrhage (EIPH). He was administered furosemide on race days but not on breeze days. He was prescribed Thyro-L powder

(thyroxine). On March 30 his stifles were injected with Predef 2x (Isoflupredone). The injections were performed subsequent to an appropriate physical exam and in the presence of a valid Veterinarian-Patient-Client relationship. In advance of his race on April 10, he received dexamethasone (April 7); ketoprofen and estrone sulfate (April 8); and phenylbutazone and estrone sulfate (April 9). All medications were administered in compliance with KHRC regulations and followed recommended withdrawal guidance.

Many horses in race training experience decreases in blood levels of thyroid hormone; this is a normal finding and not indicative of thyroid disease (hypothyroidism). The administration of thyroid hormone to clinically normal horses is not recommended. At the doses typically prescribed, the result is suppression of the horse's own production of thyroid hormone, rather than an overall increase (endogenous + administered hormone) thyroid hormone activity in the body. There is no association between thyroid hormone treatment and occurrence of fracture.

- Analysis of risk factors and other criteria (Case horse compared to uninjured cohorts in the same race)
 - Age at first start
 - Case horse: 985 days.
 - Controls range: 628-1516 days.
 - Controls Mean: 931 days
 - Median: 802
 - Age at first breeze
 - Case horse: 893 days.
 - Controls range: 637-1000 days.
 - Controls Mean: 799 days
 - Controls Median: 782 days
 - Age on 4/10/19
 - Case horse: 1405 days
 - Controls range: 1399-2847 days
 - Controls Mean: 1967 days
 - Controls Median: 1966 days
 - Comments: This race was written for four year olds and upward.
 - Entered horses ranged from 4-8 years of age as is reflected above.
 - Owner / breeder?
 - Case horse: No.
 - Control horses: No: 5/6 Yes: 1/6
 - Horse acquired through claim?
 - Case horse: Yes
 - Control horses: No: 4/6 Yes: 2/6
 - Comments: Duration of time with a trainer has been identified as a protective factor by Dr. Parkin—longer time is associated with decreased risk. The interval from first start with the current trainer to 4/10/19 was 46 days for the Case horse and for Controls ranged from 0 (first start with the trainer on

4/10/10) to 1239 days. For the Control horses, the mean interval from first race with the current trainer to 4/10/19 was 535 days. Median was 409.5 days.

- Days in training (1st published work to race date)
 - Case horse: 512 days.
 - Controls range: 610-2073 days.
 - Controls Mean: 1168 days
 - Controls Median: 1149
 - Comments: Again, because the horses in this race represented a spectrum ages, little can be learned from the range, mean, and median for the controls.
- Cumulative high speed furlongs (racing and training)
 - Case horse: 211 f.
 - Controls range: 147-587 f.
 - Controls Mean: 313 f
 - Controls Median: 249
- High speed furlongs per day in training (Day 1=date of first published work)
 - Case horse: 0.41 f / day.
 - Controls range: 0.20-0.38 f / day.
 - Controls Mean: 0.26 f / day
 - Controls Median: 0.24 f / day
- Interval from previous start
 - Case horse: 46 days
 - Controls range: 21-221 days
 - Controls Mean: 89 days
 - Controls Median: 40 days
- First time starter?
 - Case horse: No
 - Controls: No: 6/6
- Apprentice jockey?
 - Case horse: No
 - Controls: No: 6/6
 - Comments: Case is consistent with Controls.
- Drop in class from previous start?
 - Case horse: Yes
 - Controls: No: 3/6 Yes: 3/6
 - Comments: The drop in class for the Case horse was a move from the Allowance ranks to the Claiming ranks and Dr. Parkin's work documents an increased risk of fatal fracture in horses in claiming races when compared to non-claiming races.
- Double drop in class from previous start?
 - Case horse: No
 - Controls: No: 4/6 Yes: 2/6
- Raise in class from previous start?
 - Case horse: No

Controls: No: 4/6 Yes: 2/6

Comments: NA

- Number of times claimed in the preceding 6 months
 - Case horse: 1
 - Controls: 0: 4/6 1: 2/6
- Number of starts in preceding 30 days
 - Case horse: 0
 - Controls: 0: 4/6 1: 2/6
- Number of starts in preceding 60 days
 - Case horse: 1
 - Controls: 0: 2/6 1: 1/6 2: 3/6
- Cumulative high speed furlongs preceding 30 days
 - Case horse: 7 f
 - Controls range: 4-11.25 f
 - Controls Mean: 8.8
 - Controls Median: 8.8
- Cumulative high speed furlongs preceding 60 days
 - Case horse: 18 f
 - Controls range: 13-23 f
 - Controls Mean: 16.8 f
 - Controls Median: 16.3 f
- Number of layoffs 30 ≥ days in preceding 6 months
 - Case horse: 2
 - Control horses: 1: 3/6 2: 2/6 3: 1/6
- First start off ≥ 60 day layoff?
 - Case horse: No.
 - Control horses: No: 4/6 Yes: 2/6
- Second start off ≥ 60 day layoff?
 - Case horse: No
 - Control horses: No: 6/6
- Length of ≥ 60 day layoff ending in preceding 6 months
 - Case horse: NA. (No 60+ day layoffs ending in the preceding 6 months.)
 - Controls range (n= 4/6): 138-283 days
 - Controls mean: 207 days
 - Comments: Given that the current trainer had the horse for a relatively short period of time, it is difficult to interpret the prior management of the horse. His previous races were spaced approximately 3-4 weeks apart and were all run under allowance conditions.
- History of being Vet Listed?
 - Case horse: 0
 - Control horses: 0: 4/6 1: 1/6 2: 1/6

- Review of necropsy report and drug testing results

- Drug testing: No prohibited substances detected. No therapeutic medications detected above regulatory threshold concentrations.

Note: Only blood was submitted for analysis. Urine collection typically does not occur for horses euthanized. The diagnostic laboratory is instructed to collect urine if it is present in the horse's bladder, but it rarely is. So while a blood-only sample is subjected to the broadest scope of analysis possible, that scope is reduced compared to what can be applied to a paired (blood and urine) sample.

- Necropsy report:

Musculoskeletal system:

Left forelimb: Closed luxation of the fetlock joint. Lateral sesamoid: Apical fracture. Medial sesamoid: comminuted apical and basilar fractures. The following soft tissues were torn or ruptured: palmar annular ligament; suspensory ligament; superficial and deep digital flexor tendons; and distal sesamoidian ligaments.

Right forelimb: Cartilage loss on distal MCIII and sesamoids (2/5); fetlock joint cartilage parasagittal groove scoring MCIII (2/5)

Lungs: Moderate, diffuse, acute, pulmonary congestion, edema and hemorrhage.

Stomach: Mild, multifocal, subacute, gastric ulceration and hyperkeratosis.

No significant lesions: Brain, heart, liver, kidney, small and large intestine