

Amandine (GB)

Stewards Summary

Amandine (GB) broke somewhat slow, trailed the field throughout the race, began to make a slight move on the outside coming out of the turn and appeared to have a serious injury to her right foreleg while quickly pulled up near the 1/4 pole.

Jockey: Joel Rosario said he had never ridden the horse but had ridden in a race against her, liked her and wanted the mount on her. He stated that she had warmed up fine in the post parade and he had no concern about her soundness. He said that once she started running it was apparent that she did not care for the soft turf.

Trainer: Trainer Jeff Mullins stated that the filly had been training good, he was excited to get her in the race and expected her to run big. He readily agreed to provide the veterinary records when requested, both from the veterinarian in California, and the Kentucky veterinarian.

Veterinary Review

- This 4-year-old filly, trained by Jeff Mullins and owned by Red Baron's Barn, LLC; Rancho Temescal, LLC; and Shanderella Stables sustained an injury to her right forelimb at Keeneland on April 19, 2019 in the 8th race run under Allowance conditions (NW3\$/x) on a yielding turf course. Note: In his presentation at the 4th Welfare and Safety of the Racehorse Summit, Dr. Tim Parkin reported that there is a reduced risk of fatal distal limb fracture on a turf surface rated as other than Firm (e.g. Good, Yielding or Soft) when compared to a surface rated Firm.
- 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 filly was euthanized following evaluation by the trainer's veterinarian who diagnosed a lateral, displaced, compound condylar fracture and biaxial 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
Comments: Amadine (GB)'s pre-race exam history recorded subtle changes to joint capsule contour and range of motion consistent with racing soundness and on blinded review did not stand out from the exam records of her uninjured cohorts. Her in-hand jog was unremarkable whereas her previous exam notes that she was 'hikey' and travelled wide behind.
- Review of veterinary medical records
This filly received Extra Corporeal Shock Wave therapy (ECSWT) on April 8, 2019. Two sites over in the region of the lumbar spine were treated. The treatment was reported to the KHRC as required, and she was placed on the Veterinarians' List for a period of ten days as per KHRC regulations. On April 10th she received 2 intra-articular corticosteroid injections into each hock. The determination to perform ECSWT and the intra-articular injections was made following an appropriate physical

examination and in the context of a valid Veterinarian-Patient-Client relationship. Two corticosteroids were administered, the total body dose of each was equal to or less than the dose provided in the KHRC's withdrawal guidelines and the injections were performed an additional two days outside of the withdrawal interval guidance. In his interview, the veterinarian advised that he was requested to examine the filly, authorized to perform relevant diagnostic procedures, and formulate a treatment recommendation based on the results. He advised that his clinical impression at the time of the exam was that while not demonstrating overt lameness, the filly exhibited a shortened gait in her hind limbs and discomfort on palpation of the lumbar spine region. It was his assessment that the lumbar discomfort was secondary to alteration in her gait and thus he recommended the joint injections and the ECSWT. He performed a follow up evaluation and determined that Amandine (GB) had responded well to both treatments. The filly did not generate a published work between the injection date and the race on April 19th. The trainer's veterinarian in California provided veterinary medical records established prior to the filly's departure for Kentucky. Medications were used conservatively and there is no record of unsoundness exams, radiography, or other diagnostic procedures associated with musculoskeletal disease. The filly breezed at Santa Anita on March 12, 19, and 26. She was administered furosemide, and on the 26th also received Depo-Provera which suppresses signs of estrus (heat). Again, the administration of these medications in advance of a breeze represents a conservative practice. No non-steroidal anti-inflammatories (NSAIDs), steroidal anti-inflammatories, or other controlled therapeutic medications were administered in proximity to the breeze. No medications were administered in the days subsequent to the breeze.

Comments: The medical records show a pattern of conservative medication use which would allow the trainer to accurately assess the filly's soundness prior to and following high-speed exercise. Others have noted a correlation between intra-articular corticosteroid injections and musculoskeletal injury, however in this case the joints treated were unrelated to the joint affected on 4/19/19. Improvements in her gait as observed at pre-race exam were likely attributable to the treatments administered on 4/9 and 4/10.

Post intra-articular injection, corticosteroids exit the treated joint and enter the systemic circulation. Intra-articular corticosteroid injections can result in effects elsewhere in the body. However, there is no evidence in this filly's medical records for lameness, or any clinical signs that would warrant concern about her musculoskeletal health. To the extent that the IA corticosteroid injections could mask orthopedic disease elsewhere, there was no clinical indication for its existence.

- Analysis of risk factors (Case horse compared to uninjured cohorts in the same race)
 - Age at first start
 - Case horse: 893 days.
 - Controls range: 574-904 days.
 - Controls Mean: 825.6 days

- Age at first breeze
 - Comments: Comparison not possible. Case horse imported from Great Britain where high speed exercise history, other than racing, is not recorded.
- Age on 4/19/19
 - Case horse: 1,529 days
 - Controls range: 1,113 – 1,846 days
 - Controls Mean: 1,548 days
- Owner / breeder?
 - Case horse: No.
 - Control horses: No: 4/10 Yes: 6/10
- Horse acquired through claim?
 - Case horse: No
 - Control horses: No: 10/10. Yes: 0/10
- Days in training (1st published work to race date)
 - Comparison not possible. Case horse imported from Great Britain where high speed exercise history, other than racing, is not recorded.
- Cumulative high speed furlongs (racing and training)
 - Comparison not possible. Case horse imported from Great Britain where high speed exercise history, other than racing, is not recorded.
- High speed furlongs per day in training (Day 1=date of first published work)
 - Comparison not possible. Case horse imported from Great Britain where high speed exercise history, other than racing, is not recorded.
- Interval from previous start
 - Case horse: 56 days
 - Controls range: 36-254 days
 - Controls mean: 112.9
- First time starter?
 - Case horse: No.
 - Controls: No: 10/10. Yes: 0/10.
- Apprentice jockey?
 - Case horse: No.
 - Controls: No: 10/10. Yes: 0/10.
- Drop in class from previous start?
 - Case horse: Yes.
 - Controls: No: 4/10. Yes: 6/10
- Double drop in class from previous start?
 - Case horse: Yes.
 - Controls: No: 8/10 Yes: 2/10
 - Comments: The double drop in class would (and did) warrant additional scrutiny for the Case horse and 2 Controls. Exam findings did not warrant intervention for any of the 3.
- Raise in class from previous start?
 - Case horse: No.
 - Controls: No: 7/10. Yes: 3/10

- Number of times claimed in the preceding 6 months
Case horse: 0
Controls: 10/10: 0
- Number of starts in preceding 30 days
Case horse: 0
Controls: 1: 1/10 0: 9/10
- Number of starts in preceding 60 days
Case horse: 1
Controls: 1: 4/10 0: 6/10
- Cumulative high speed furlongs preceding 30 days
Case horse: 20 f
Controls range: 4 – 22 f
Controls mean: 14.8 f
Controls medial: 17 f
- Cumulative high speed furlongs preceding 60 days
Case horse: 28 f
Controls range: 8 – 34 f
Controls mean: 25.4 f
Controls median: 29 f
- Number of layoffs 30 ≥ days in preceding 6 months
Case horse: 4
Control horses: 1: 30%. 2: 20%. 3: 30%. 4: 20%
- First start off ≥ 60 day layoff?
Case horse: No.
Control horses: No: 4. Yes: 6.
- Second start off ≥ 60 day layoff?
Case horse: No.
Control horses: No: 9/10. Yes: 1/10.
- Length of ≥ 60 day layoff ending in preceding 6 months
Case horse: 60 days
Controls range (n=8): 83-287 days
Controls mean: 165.5 days
Controls median: 144 days
- History of being Vet Listed?
Case horse: 1x
Control horses: 0x: 8. 1x: 2.
- 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: The report confirmed the ante-mortem diagnosis of RF lateral, displaced condylar fracture and biaxial sesamoid fractures. Additional findings included: On each of the RF and LF suspensory ligaments proximal to the bifurcation were noted two circular, symmetrical yellow-brown foci approximately 1 mm in diameter. Free red blood cells were observed as were hemosiderin-laden macrophages.

Comment: The etiology of these lesions is unknown. A subsequent interview was conducted with the trainer to determine if alternative therapeutic modalities (e.g. acupuncture) could account for the lesions. He advised that no treatments were applied other than those recorded in her medical records and could offer no explanation for the suspensory lesions. To the extent these lesions cannot be explained, they also cannot be considered relevant to her fatal injuries. The soft tissue in proximity to these focal lesions was intact and retained its structural integrity.

Examination of the (uninjured) LF MCIII: Articular cartilage scoring (2/5); Cartilage loss and palmar osteochondral disease (1/5); Transverse ridge arthrosis (2/5); condylar flattening and remodeling of MCIII (1/5). Sesamoids: Cartilage loss and marginal remodeling (1/5). P1: arthrosis (1/5).

Comments: There is evidence of pre-existing pathology in the distal cannon bone, sesamoids, and long pastern bone. The changes are relatively subtle, and while clearly present, it is not clear that they would have manifested in a clinically apparent manner.

Other tissues examined:

Stomach: Mild, multifocal, subacute squamous ulceration (gastric ulcers) with hyperkeratosis and mild glandular gastritis.

Lungs: Pulmonary congestion with mild hemorrhage.

No significant lesions: Brain, heart, kidney, spleen, intestines, or liver.