Equine Infectious Anemia and Equine Piroplasmosis in Racing Quarter Horses

Los Alamitos Owner/Trainer Seminar
April 2016

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Equine Infectious Anemia

- Blood borne Diseases in Horses
- Virus: the “HIV” of the horse world
- Occasionally seen in the United States
- Lifetime infection
- No treatment
EIA Can Infect All Equid Species
EIA Natural Transmission

Infected Horse gets bit → Fly becomes infected with EIAV

Infected fly bites another horse

Another fly bites the infected horse

Fly is now a carrier
Other Methods of Transmission
EIA Diagnosis: Blood Test

- Coggins Form
- Positive approximately 3 weeks post infection
- Positive horse
  - Quarantine 200 yards away from all other horses
  - Humane euthanasia
EIA Clinical Signs

• Mostly no clinical signs
• Mild Cases
  – Fever
  – Don’t want to eat
• More severe cases
  – Weak
  – Depressed
  – Increased heart rate and breathing
  – Edema legs and under belly
EIA Control

• No Treatment
• No Vaccination
• Positive Animals
  – Lifetime quarantine and Isolation – 200 yards away from all other horses
  – Humane Euthanasia
• Exposed animals
  – Initial test
  – Second test 45-60 days post removal of the positive horse
Equine Piroplasmosis

- Parasite
- Not known to be in the United States
- Lifetime carrier without treatment
- New treatment available
EP Can Infect All Equid Species
EP Natural Transmission

One infected horse

Tick bites infected horse and becomes infected

Infected horses carry parasite in their blood

Infected tick bites a horse and transmits parasite
Other Methods of Transmission
EP Diagnosis: Blood Test

• Two test must be run
  – One tests for recent infection
  – One test for chronic infection

• Positive horse is quarantined
  – Isolated: Tick free environment
  – May enter treatment program
EP Clinical Signs

- Mostly no clinical signs
- Mild Cases
  - Fever
  - Don’t want to eat
- More severe cases
  - Weak
  - Depressed
  - Increased heart rate and breathing
  - Edema legs and under belly
EP Treatment and Control

• US Approved Treatment Program
  – Drug administered 4 times 72 hours apart
  – Not every case of EP will respond to treatment

• Positive Horses
  – Quarantine and Isolated in tick free area
  – Option to enroll in treatment program

• Exposed animals
  – Only one test
EIA/EP Positives
Identification of Exposed Horses

- Geographic area
  - Barn of positive horse
  - Neighbors

- Owners/Trainer links
  - Current and Previous

- Sharing of blood or blood contaminated equipment
## Racing Quarter Horse Cases

<table>
<thead>
<tr>
<th>Equine Infectious Anemia Cases</th>
<th>California</th>
<th>Rest of the US</th>
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<tbody>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>24</td>
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<tr>
<th>Equine Piroplasmosis Cases</th>
<th>California</th>
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<tr>
<td>TOTAL</td>
<td>19</td>
<td>214</td>
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<tr>
<th>Dual Infection Cases (EIA and EP)</th>
<th>California</th>
<th>Rest of the US</th>
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<tbody>
<tr>
<td>TOTAL</td>
<td>10</td>
<td>4</td>
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Close look at 2015 and 2016 EIA Racing QH Cases in the US

• 2015
  – Cluster of 15 in Pacific Northwest: All traced to a California owner/trainer
  – 1 Oklahoma dual infected horse traced to bush track

• 2016
  – One Pacific Northwest Positive Case Traced to California owner
  – Four Texas positive cases traced to bush and sanctioned racing.
Interesting Bush Track
2016 EIA Case

- Clinical Thoroughbred presents with a PCV of 5 to Alabama veterinarian in February of 2016
  - Test positive for EIA
  - History of bush track racing

- Horse was shipped two weeks prior from state of Washington to Alabama
  - Shipper was sent to pick up horse at training facility of the racing QH positives but horse was not there; was out on pasture
  - Shipper recognized horse but said it was a beautiful gelding two years prior

- Two years prior horse was shipped from Illinois to Washington
California Racing Quarter Horse EIA/EP Incident

- **2012-2013 Investigation**
  - 8 EIA Infectious Anemia
  - 9 Equine Piroplasmosis
  - 2 dual infections
  - 5 premises with 108 exposed horses
  - 3 premises with positives

- **2014 Investigation**
  - 26 Equine Infectious Anemia
  - 11 Equine Piroplasmosis
  - 8 Dual Infection
  - 19 total premises with 245 exposed horses
  - 13 premises with positives

- **2015 Investigation**
  - 3 Equine Infectious Anemia cases on 3 premises
  - All single case detections—all exposed negative

- **Grand Total**
  - 37 EIA, 19 EP, 10 dual infections
California Findings

• Younger horses: average age 4.6 yrs.

• Sanctioned and unsanctioned racing
  – Fair racing, claiming races
  – Review of race records show potential decrease in performance

• Confirmed sharing of needles, syringes, IV sets

• Insert needles into multi-dose vials

• No tattoo link

• Potential contaminated blood product
Investigation Challenges

- Limited documentation
- Quarantine for retest
- Illegal movements
- Fair racing circuit
- Unsanctioned racing culture
- Horse misidentification - switching horses
  - CA: microchip and digital photos
How Industry Can Help CDFA?

• Be the eyes and ears in the industry
  – Contact your veterinarian if you suspect EIA or EP

• Assist in protecting equine health
  – Promote and practice biosecurity
  – Educate fellow industry members on EIA and EP risks associated with racing QH
  – Encourage industry disease prevention measures
    • Continued EIA and EP testing of high risk racing of QH
Protecting Equine Health is a Team Effort

Alone we can do so little; together we can do so much.

- Helen Keller
Questions

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