IAEP 2012- Lameness Cases

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Sapphire
8 yr old WB Mare
Equitation

Complaint/History

- Right front leg acute lameness (4/5) the day following a competition (lunged in the morning) with no apparent swelling present, one month ago
- Horse was very sensitive to flexion of right front fetlock
- No significant findings on radiographs of right front fetlock
- Horse treated with intra-articular injection of right front fetlock, pastern and digital interphalangeal joints over 2 weeks and given 2 weeks rest – minimal improvement

Clinical Examination

Dynamic Examination:

Diagnostic Approach

Results of distal digital (PD) nerve analgesia:

- Improved lameness in straight line 90%
- Right front lower leg flexion test – slight positive (1+/5)

Diagnostic Approach

- Right front proximal digital (AB) nerve analgesia

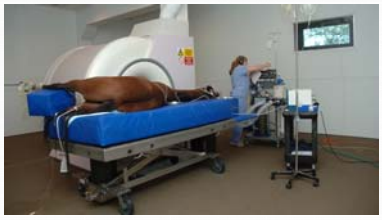
Diagnostic Approach

Results of proximal digital (AB) nerve analgesia:

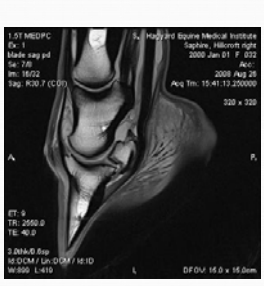
- No lameness right front
- Right front lower leg flexion test – negative

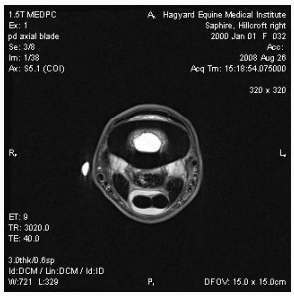
Radiographs - Results

- No significant findings
- Owners elected MRI



Diagnostic Approach - MRI

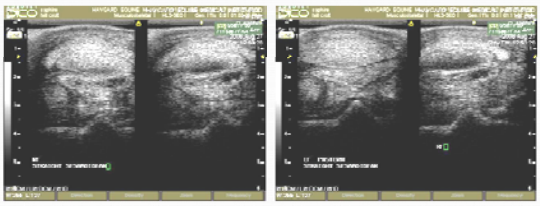




MRI - Results

- Tear of straight distal sesamoidean ligament – proximal lateral aspect beginning near the pastern joint and extending proximally in excess of 2 cm at the level of mid-diaphysis of P1 and out of the area included in the field of view

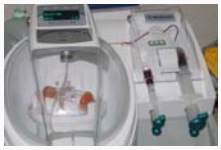
Diagnostic Approach - Ultrasonography



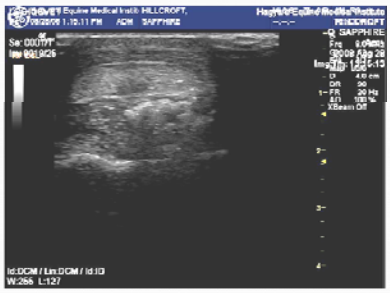
Conclusion - Treatment

Surgical treatment/Local treatment

- Ultrasound guided injection of platelet rich plasma (PRP) 60% and bone marrow aspirate (BMA) 40% intralesionally into multiple sites



Conclusion - Treatment



Conclusion - Management

Physical Activity:

- 30 days stall rest with hand walk, then
- 60 days small paddock (60'x 60'), then
- 60 days large paddock (120'x 120'), then
- 60 days ponying at walk/trot (starting at 5 minutes and adding 5 min/week), then
- 60 days with added canter

Conclusion - Management

Shoeing:

- Balanced and regular intervals
- Do not allow excessive heel growth/height
- Do not extend shoe heels caudally - fit shoe tight to heels
- Straight sesamoidean ligament is part of the suspensory apparatus

Conclusion – Follow-up & Treatment

Follow-up:

Clinical and Ultrasonographic examination initially at 30 day, then at 60 day intervals

Treatment:

ECSW – 60 days post surgery start three (3) treatments at 2 week intervals then treat once (1) monthly for 4 treatments

Follow-up 3 months

Discussion

Etiopathogenesis – likely hyperextension of fetlock joint but there must be some weakening over time (repetitive damage) prior to an acute overload

Prognosis – following time period of 8-10 months, the possibility of this horse returning successfully to her previous level of competition is dependant on how rapidly she is pushed to perform; she will need a gradual increasing program of exercise load that allows the tissues to develop strength over time.

Abby
8 yr old, Polo Pony (TB) Mare
Polo

Complaint – History

- Right front lameness

History:

- 10 days ago, non-weight bearing during game
- Improved with rest and played 24 hours ago but now sore on leg

Activity:

- Plays twice weekly (12-20 goals)
- Pastured during day

Clinical Examination

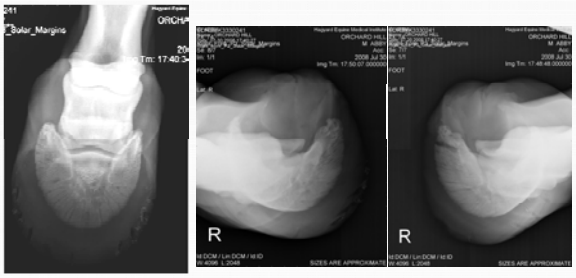
Dynamic Exam:

Diagnostic Approach

Diagnostic Analgesia –

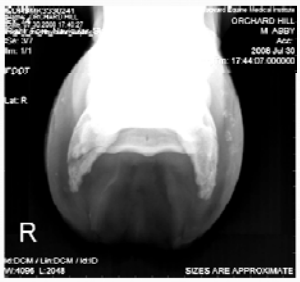
- Right front digital nerve block (lateral only) – sound

Radiographic Examination



Diagnosis

Fracture of the lateral palmar process of P-3 right front



Management

Corrective shoeing:

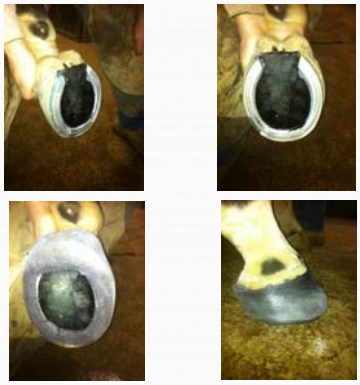
- Bar shoe with pour in soft acrylic

Physical activity:

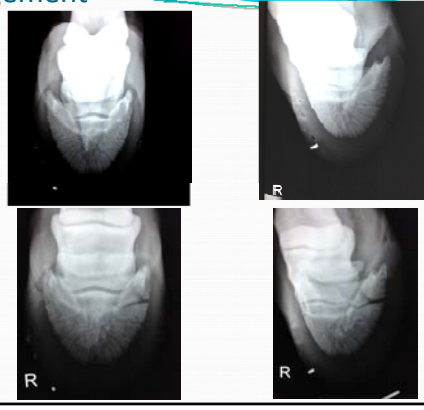
- Stall rest 45 days, then
- Small paddock for 75 days

Followup Radiographs:

Management

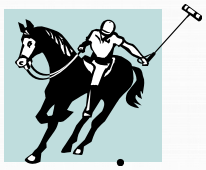


Management



Discussion - Etiopathogenesis

- Hard turn and overload of lateral wing of P-3
- Direct trauma from mallet to lateral palmar wall of hoof



Prognosis

- Excellent with adequate rest and utilizing hoof capsule as stabilizing mechanism – return to pre-injury condition
- Possible unstable fibrous union could result in persistent low grade lameness

Nairobi
14 yr old, Dutch Warmblood Gelding
Show Hunter

History/Complaint/Examination

- Right hind lameness following 3 weeks of showing on the spring circuit
- Horse was purchased 10 months previously
- Competed successfully throughout fall circuit (2 months) and winter circuit (4 months)

Physical Exam:

- Right hind thickened proximal MT region (medial)
- Reactive to palpate right hind proximal SL (medial)
- Sensitive to palpate right sacroiliac region

Clinical examination

- Dynamic exam:

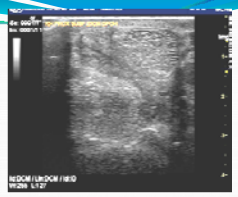
Diagnostic Approach

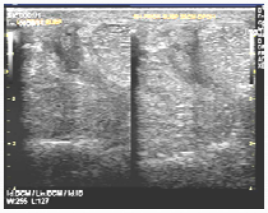
Diagnostic Analgesia –

- Right hind proximal SL infusion

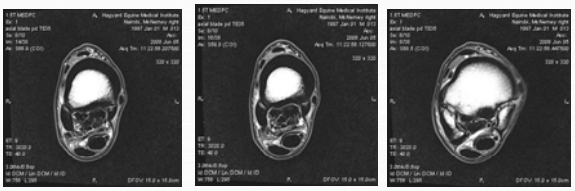
Ultrasonography

- Enlarged cross-sectional suspensory ligament
- Bony remodeling plantar MT 4





Diagnostic Approach - MRI



- Thickened proximal suspensory ligament with areas of chronic injury (low signal intensity)
- Lateral aspect suspensory ligament desmitis (high signal intensity)
- Sclerosis of MT 3 – more apparent medial attachment of suspensory ligament

Management - Treatment

Focal Treatment:

- ☞Injection with Depo-Medrol, Traumeel & Sarapin
- ☞ESWT- every 10 – 14 days for a total of 4 treatments
- ☞LITUS treatment 4days/week

Systemic Treatment:

- ☞Tildren IV for 10 days
- ☞Firocoxib for 21 days

Topical Treatment:

- ➢Surpass (diclofenac) for 10 days

Management- Shoes

Principle:

Increase tension on DDFT for support of fetlock to decrease tension on the suspensory apparatus

Practice:

- Widen toe region
- Narrow branches of shoe
- Minimal heel support

Management- Exercise

Physical Activity:

1. Hand walk (15-30 min/day) and small paddock rest (1-3 hours/day) for 30 days
2. Hand walk, flat treadmill (30 min/day) and small paddock for 2 weeks
3. Flat treadmill, tack ride at walk (20-30 min/day), short periods of trot 3X/week and small paddock for 2 weeks
4. Start adding 5 minutes of trot every week up to 30 min. for 60 days
5. Add canter

Shoes: Closely fit, narrowed heel

Prognosis

- Good if responds to treatment and clinically sound in 6 – 8 weeks
- Likely to return to competition at previous level and perform adequately if managed well

Follow-up

Re-examined 8 weeks post-initial:

- Mild asymmetric excursion of croup/SI
- Right hind upper leg flexion test – negative

Discussion - Epidemiology

- Relatively common injury of jumping horses
- Two forms: Acute overload injury; Chronic, repetitive tissue weakening and lameness
- Warmbloods or heavy horses appear more susceptible
- Generally older population (8 to 16 yrs), more related to "miles" of showing

Discussion - Etiopathogenesis

Multifactoral: Other factors

- Overweight horses
- Conformation – upright stifles, hocks; long pasterns
- Fitness for task – usually not conditioned enough for level of exercise
- Medications – low dose, chronic corticosteroids may have effect on collagen and ligamentous tissue
- Possible genetic component with collagen degradation
- Shoeing – bar shoes, heel caulks, wide web heels, wide trailers

Discussion - Prognosis

Good to Guarded

- Try to unload SL – lower heels, broaden toe so heels of shoe sink into surface

- Management:
  - Time for tissues to stabilize – variable
  - May need to decrease performance level
  - Constant "awareness" of condition – ongoing concern
  - Weight control
  - Fitness level

Zeus, 9 yr old
WB, Gelding, A/O Jumper

History/ Complaint

- Mid-July- developed swelling in bilateral hind legs around fetlocks after showing for 3 weeks
- Ring surface was "deep" and horse seemed to have to work hard out of the footing
- Bandaging, cold hydrotherapy and some Bute did little to reduce swelling over 2 days
- RDVM- Left hind leg showed mild lameness (1+/5) on straight and lower leg flexion test was positive (2+/5)

Initial treatment

- RDVM- tapped, drained and injected with HA/Triamcinalone
- Bandage support with DMSO/Furacin
- Cold/compression therapy
- Hand walk, restricted exercise for 6 weeks, then start light riding

Follow-up

- Late-September- started jumping and swelling returned bilateral (RH>LH)
- RDVM-Lame right hind (3/5)
- Right hind lower leg flexion- positive (4/5)
- Ultrasound revealed bilateral hind leg tenosynovitis with tear in RH DDFT at level of pastern

Examination

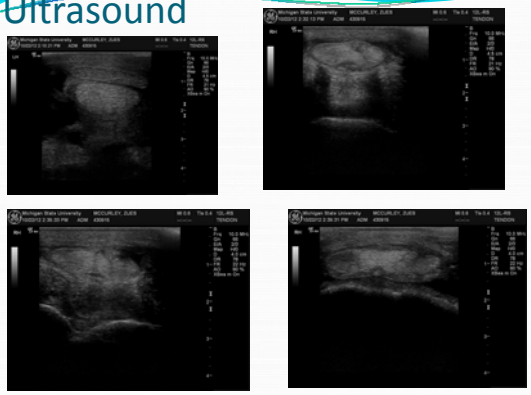
- Approximately 3 weeks from RDVM exam

What to do?

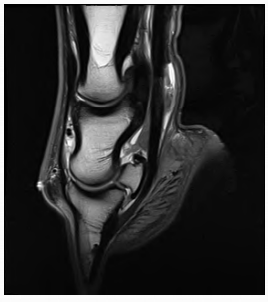
- Diagnostic analgesia?
- Retreat?
- Radiographs?
- Ultrasound?
- MRI?
- Nuclear Scintigraphy?

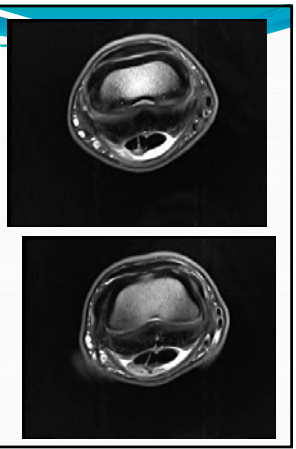
- Insurance due but good for another 60 days on this incident

Ultrasound

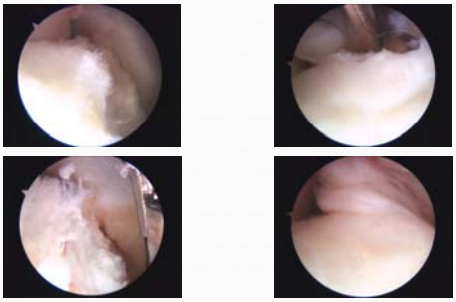


MRI





Tenoscopy



Treatment

- Stall rest, hand walk and support bandage for 30 days
- IRAP therapy of tendon sheath weekly for 2 treatments starting 2 weeks post surgery
- Return for tenoscopy and debridement surgery on left hind tendon in 30 days
- Mesenchymal stem cell/PRP therapy of right hind tendon sheath at that time
- Continue another 30 days of stall rest, hand walk and support bandage

Prognosis

- Rehabilitation of 10-12 months
- Guarded for return to same level of jumping competition

Thank you