Equine: Bilateral Hind Limb Lameness

Irish Sport Horse (Mare) Eight years, ten months old





Presentation

Owner/Trainer: Decline in athletic performance.

Veterinarian

Digital palpation found some tight muscles near the spine but nothing in the lower back. The horse limped more (grade 3/5) when trotting straight, placing both hind legs inward with the right foot landing on the inside first. Lunging showed a milder limp (grade 2/5) on the right hind leg in both directions. Exam also revealed mild swelling in the right ankle joint capsule.

WellVu Thermal Imaging





Hyperthermia (Hot)		
Finding	Asymmetrical bilateral hyperthermia throughout the epaxial musculature. (PAO Dorsal View)	
Impression	Increased vascularization/perfusion within the musculature, possibly correlated to either primary inflammation and/or compensatory strain from disorders distally.	
Finding	Focal areas of hyperthermia, increased temperature emission, on the midline from T10-11 – L1-2. (PAO Dorsal View)	
Impression	Anatomical areas of increased vascular perfusion.	
Finding	Asymmetrical diffuse areas of diminishing hyperthermia originating at the points of focal hyperthermia on the midline before losing intensity distally (white arrows on PAO Dorsal View)	
Impression	This unique pattern could correlate with spinal nerve irritation affecting the circulation within these muscles.	
Finding	Bilateral asymmetrical areas of hyperthermia within the paravertebral musculature of the lumbar spine, continuing through the lumbosacral joint and descending distally throughout the gluteal musculature to the dorsal aspect of the coxofemoral joint.	
Impression	Anatomical areas of increased profusion resulting from inflammation within the soft tissues.	
Finding	Asymmetrical irregular areas of hyperthermia over the RH tarsi's medial aspect.	
Impression	This increased temperature emission correlates to an increase in circulation/vascular perfusion that could possibly be compromised by an innervation irritation to these structures.	
Hypothermia (Cold)		
Finding	Multiple areas of bilateral asymmetrical hypothermia are noted throughout the distal portions of both hind limbs but are more prevalent in the left hind.	
Impression	Possibly consistent with irritation of the sympathetic nerve supply associated with dermatomes L6 – L7	



Further Imaging

Nuclear scintigraphy:







Nuclear scintigraphy revealed:

- Mild symmetrical IRU (increased radiopharmaceutical uptake) within the sacroiliac joints.
- Mild IRU right hind pastern
- Mild to moderate IRU caudal thoracic articular process joints.
- Mild linear IRU uptake both distal tarsi.

Radiographic Study

- A left ventral-right dorsal oblique view of the caudal thoracic vertebrae revealed mild remodeling of the articular facet joints: T14/15 and T15/16.
- The lateromedial view of the right hind pastern exhibited a small, well-defined dorsally directed osseous spur at the dorsoproximal aspect of the middle phalanx, consistent with mild OA.
- No significant lesions within the joints of the right tarsi.



Question

Who benefited more: the Patient or the Practice?

Better Care for Equine Athletes



Patient Benefits



- The client visualized and understood the extent of the neurological deficits, allowing immediate compliance to nuclear scintigraphy and radiographic studies.
- Physiological evidence to accompany the history, radiograph, and physical examination findings.
- Baseline information for objectively monitoring this patient's response to any treatment plans.
 - The client understood the gravity, the number of obstacles, and the time to overcome this athlete's return to competition.



Practice Benefits

- Information the client could easily understand, which eased their concerns about complying with the structural diagnostic recommendations.
- Client visualization supporting the case management recommendations.
- Baseline images and temperature analysis that could be used to objectively monitor response to any treatment plan.

Service	Revenue
IRTI exam	£30
Lameness exam	£325
Radiographic study	£650
Nucelar scintigraphy	£2,800
Total	£3,805

Take-Aways

A single £30 infrared thermal imaging exam led to...

 Diagnostic compliance and an understanding of the challenges this athlete faced to return to competition.





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