



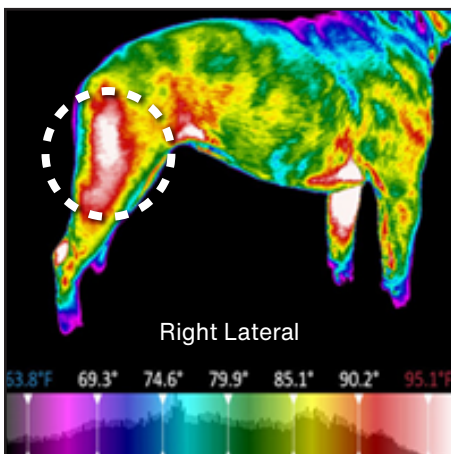
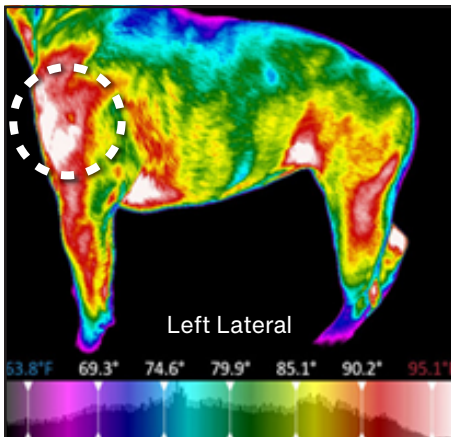
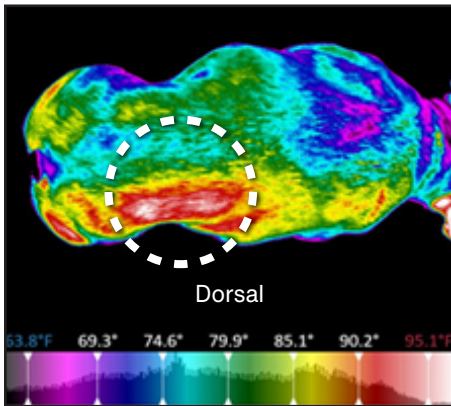
## Presentation

**Owner/Trainer:** Lethargic; unwilling to move.

**Veterinarian:** A physical exam revealed painful areas throughout the right paravertebral musculature and the left scapulohumeral joint corresponding to the areas of hyperthermia. There was generalized resistance to any manipulation of the spine.



## WellVu Thermal Imaging



**Hyperthermia (Hot)**

<b>Finding</b>	Areas involving the left shoulder extending from the mid-scapular region distally and laterally to the carpus. A large area directly over the left scapulohumeral joint radiating proximally to include the anterior border of the scapula and distally to just proximal of the elbow. (Left Lateral View)
<b>Impression</b>	Consistent with compensatory weight-bearing on front left limb due to off-loading of weight from those areas lacking innervation and blood supply.
<b>Finding</b>	Diffuse hyperthermia noted on right thoracic paravertebral musculature from T10-11 – L6-7 and involving the right gluteal with focal region around L5-6. (Dorsal View)
<b>Impression</b>	Increased blood flow to these muscles consistent with compensatory weight-bearing due to off-loading from the left hind limb.
<b>Finding</b>	Generalized hyperthermia within the biceps femoris, semimembranosus, and semitendinosus muscles on the right. (Right Lateral View)
<b>Impression</b>	Similarly consistent with compensatory weight-bearing on right hind limb due to lack of innervation and blood flow throughout the dermatomes supplied by the spinal nerves innervating the left hind limb

**Hypothermia (Cold)**

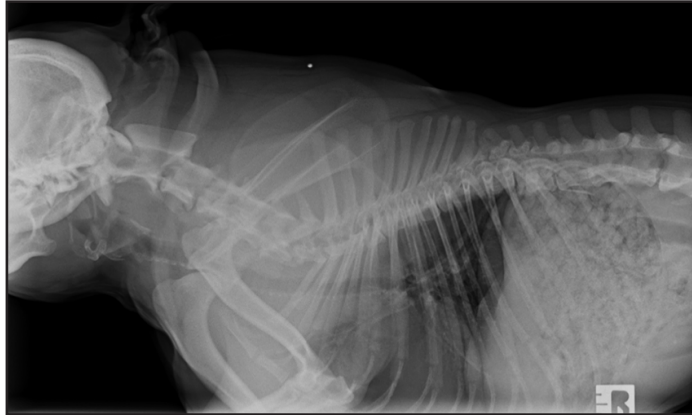
<b>Finding</b>	Hypothermia bilaterally throughout the cervical region and the left lateral areas of the thoracic, lumbar, and sacral spine with notable focal regions at T3-5 and L7. (Dorsal View)
<b>Impression</b>	Consistent with nerve irritation of the spinal nerves throughout the spine regions.
<b>Finding</b>	Bilateral localized hypothermia dorsally along the thoracic spine (Both Lateral Views).
<b>Impression</b>	Consistent with nerve irritation upon the spinal nerves innervating this region.



## Intervention Based on Findings

### Further Imaging

- Radiograph: Confirmed scoliosis, numerous lesions throughout the thoracic and lumbar spinal column, fourteen pairs of ribs.

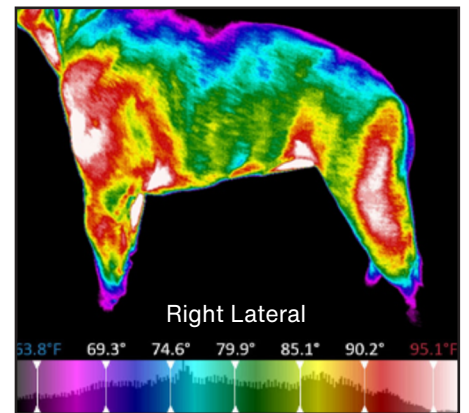
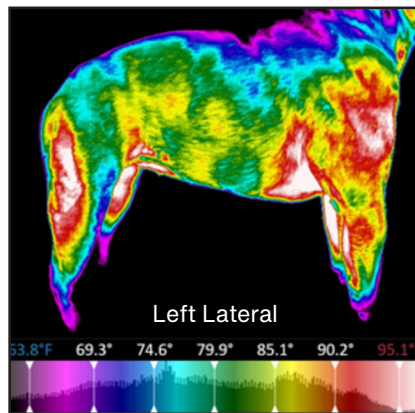
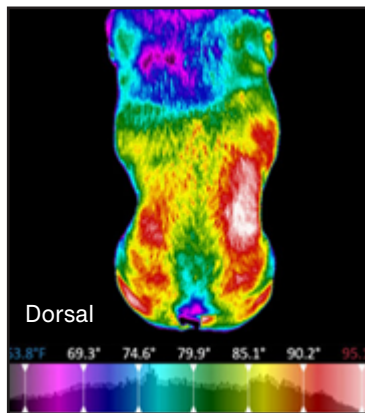


### Treatment Plan

- PBMT treatments three times per week
- Acupuncture weekly
- Therapeutic exercise three times per week
- Proprioception work
- Various Core strength exercises



## WellVu Thermal Imaging Recheck



### Re-establishing Thermal Symmetries

- Re-establishment of circulation in the left and right paravertebral musculature throughout the lumbar and sacral areas (Dorsal View)
- Improved function/circulation in the right shoulder and throughout the extensor muscles of the left hind limb (Both Lateral Views)

### Room for continued veterinary services

- The patient exhibits bilateral hypothermia, both dorsally and laterally, indicating that veterinary care may be required throughout their entire life.



Question

Who benefited more: the Patient or the Practice?

# Better Care for Pets: Empowering Owners, Optimizing Outcomes



## Patient Benefits

- Visualization confirmed areas of primary discomfort.
- Identified further musculo-skeletal issues stemming from suspected neurological root cause.
- Shed light on the reason and areas of compensation, and their resultant sites of inflammation.
- Enabled non-surgical treatment of symptoms that led to increase in activity and partial normalization of physiology.
- Objectively monitored the patient's progress and assessed the need for long-term care.

*If untreated, probable long-term implications:*

Service	Savings
Surgery	\$4,000
Pain Pharmaceuticals (NSAIDs)	\$800
Rehab	\$340
<b>Total</b>	<b>\$5,140</b>



## Practice Benefits

- Information the client could easily understand, which eased their concerns about complying with the radiographic recommendation.
- Client understanding of the long-term consequences of this condition.
- Identifies precise targets (previously known and unknown) for physical and modality-based therapy.
- Baseline images and temperature analysis are used to monitor response to therapy with subsequent thermal images.
- Helps to identify the full chain-of-care events to recovery.

Service	Revenue
IRTI exam	\$30
Client compliance to a radiographic study	\$125
PBMT treatments: (20 Multiple site sessions)	\$680
Acupuncture sessions: (8)	\$280
Therapeutic exercise	\$825
IRTI recheck	\$30
MPL rental: (30 days)	\$480
<b>Total</b>	<b>\$2,450</b>



## Take-Aways

Early detection: a single \$30 screening exam, led to...

1. Enhanced service utilization (\$2,450 for the practice).
2. To prevent more serious, expensive (up to \$5,000), long-term chronic issues for the patient.