



Thermal Imaging Report

Barbie



*Thermal Imaging completed by
a Certified Thermographer
Authorized with the EquineIR™
Network.*



*Interpretative results
completed by Licensed
Veterinarians in contract with
Integrated Equine Infrared.*



Equine Resources Imaging Services
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PATIENT: Barbie

THERMOGRAPHY DATE: September 10, 2013

IMAGING TIME: 8:10pm

September 21, 2013

Neil & Lisa Gillies
Box 2125
Neepawa, MB R0J 1H0

Dear Neil & Lisa Gillies:

EquineIR was recently requested to perform a full body thermal imaging scan of: **Barbie**

The following photo report was completed by your EquineIR™ Certified Thermographer and all interpretative results were channeled through interpretir.com and subsequently formulated and input by a licensed veterinary team member with Integrated Equine Infrared.

The interpretation is intended to aid your state-licensed veterinarian in providing a diagnostic or treatment protocol. All follow-up testing and treatments should be conducted and administered by your primary veterinarian. The interpretation provided is based solely on the conditions at the time of survey and the thermal images included in this report. Thermography is a diagnostic tool that measures heat emitted from the surface of the patient. The thermal imaging camera converts infrared energy into a visible image. Emitted heat is related to circulation; as such, the thermal camera can help detect areas of inflammation as well as decreased circulation. Thermal symmetry is key, so you compare one anatomic area with the same area on the other side. The EquineIR™ report is prepared in this manner. It should be understood that correct patient preparation and environment are vital to a successful survey. Your EquineIR™ technician is also a Certified Infrared Thermographer and has been trained in the proper use and the proven techniques of thermal imaging as it is used with horses. There are however certain situations which may reduce the quality of the survey including the improper preparation of the horse prior to technician's arrival. The interpreting veterinarians who review the imagery base their findings and recommendations on information provided, so it is critical that proper care be taken in the preparation process to ensure success.

Thermal imaging is a physiologic modality and should not be relied upon as the sole diagnostic tool. A complete clinical examination by your state-licensed veterinarian is always recommended for the best diagnosis and follow-up treatment. This Report is not a definitive diagnosis of any illness or disease. It is intended for use only by licensed veterinary professionals to evaluate patient health, diagnose medical conditions, and provide treatment. It is not to be used by individuals for self-diagnosis or self-evaluation, nor for the diagnosis or evaluation of other non-qualified personnel. This report does not replace, nor is intended to replace a complete clinical evaluation by your state-licensed veterinarian. Under no circumstances will EquineIR™, Integrated Equine Infrared or its affiliates be held responsible for illness, injury, or death to the patient as a result of the information contained herein. This report does not replace, nor is intended to replace a complete clinical evaluation.

Your EquineIR™ Technician looks forward to working with you in the future. If you would like to set up an ongoing maintenance imaging program for your horse(s), we can arrange this at discounted rates along with multiple horse discounts. Please call our office with any questions as we would love to assist you in your success.

Sincerely,

Connie Friesen

Connie Friesen, *Certified Infrared Thermographer*
Equine Resources



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 www.equineir.com

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EQUINE CLIENT INFORMATION

CLIENT NAME: Neil & Lisa Gillies
MAILING ADDRESS: Box 2125, Neepawa, MB R0J 1H0
CLIENT EMAIL: lisagillies1@hotmail.com
CLIENT PHONE: 204-476-3386

HORSE AGE: 11
HORSE BREED: Quarter Horse
HORSE PRIMARY USE: Rodeo-Barrel Racing/Pole Bending

SURVEY INFORMATION

THERMOGRAPHER: Connie Friesen
INFRARED CERTIFICATION #: 9036
INFRARED CAMERA MODEL: Flir T420 **CAMERA SERIAL NUMBER:** 62101463
NUMBER OF THERMAL IMAGES SUBMITTED: 30

WEATHER: Slight Wind, Cooler
APPROXIMATE TEMPERATURE: 65 °F
IMAGING LOCATION: Barn aisle

EXERCISED PRIOR: Yes **HOW LONG:** 15 Minutes **WHEN:** 7:20pm
TYPE OF EXERCISE: Lunged

BOOTS OR WRAPS ON HORSE? No **HOURS SINCE:** Not Applicable
FLYSpray OR LINIMENTS APPLIED WITHIN 24 HOURS: No

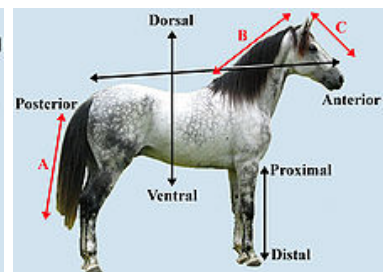
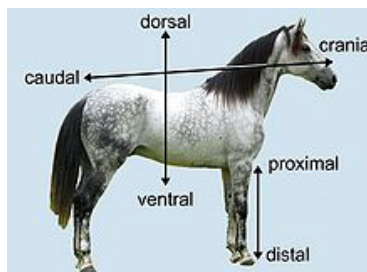
REASON FOR SCAN or HISTORY RECEIVED: Barbie was purchased 1 ½ years ago. In the last 6 months she has not wanted to go into the arena gate at a rodeo, and rears up. She tries to turn back in the trailer. During her run she seems off. Barbie doesn't want to turn well to either the right or left. She resists turning her head, especially to the right. She has been using a different saddle for the last 2 months. The other saddle was fitting a little snug. Barbie has had right knee injected once. The vet saw a slight injury on x-ray. Also has had chiro work done. Owner would like to know what's going on with Barbie, she doesn't want to use her if she is hurt. Wondering if she's hurt or developed an attitude. Brand on left shoulder and botched left hip.

INTERPRETATION INFORMATION (Completed by Veterinarian)

INTERPRETATION TYPE: Full Enhanced Survey

DATE OF INTERPRETATION: 9/20/2013

REVIEWING VETERINARIAN: Joanna Robson, DVM, CIT

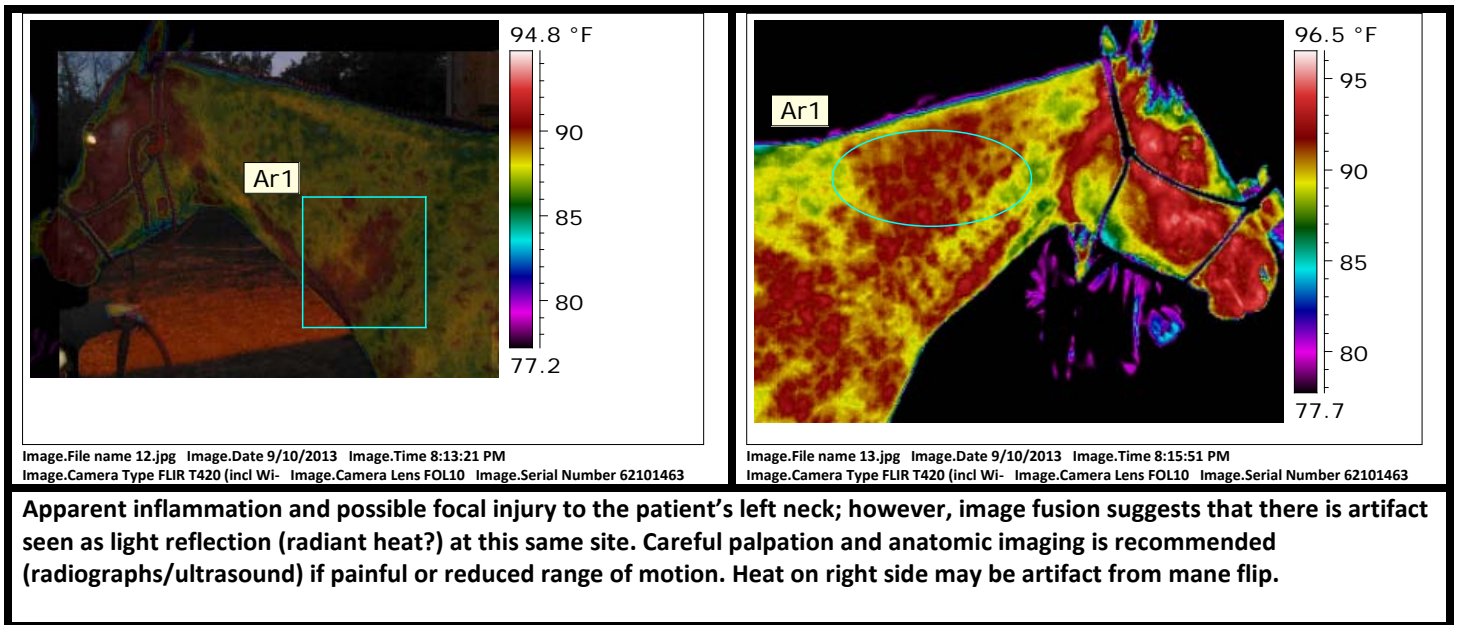
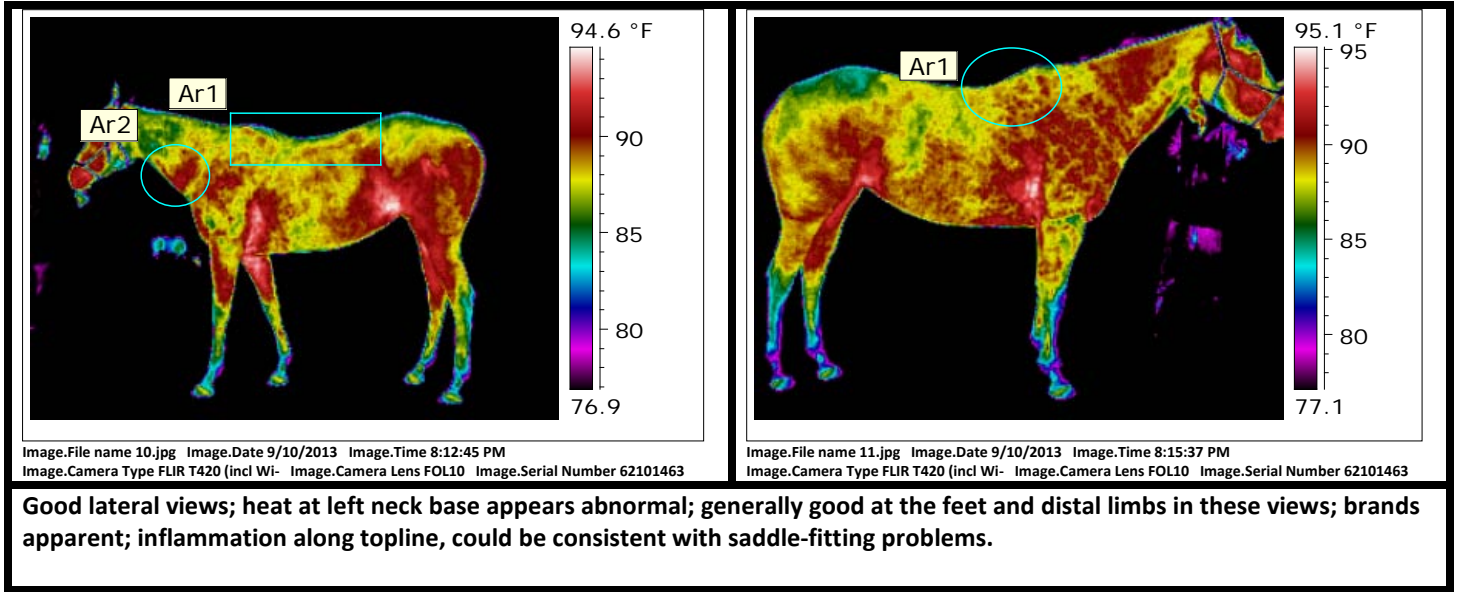




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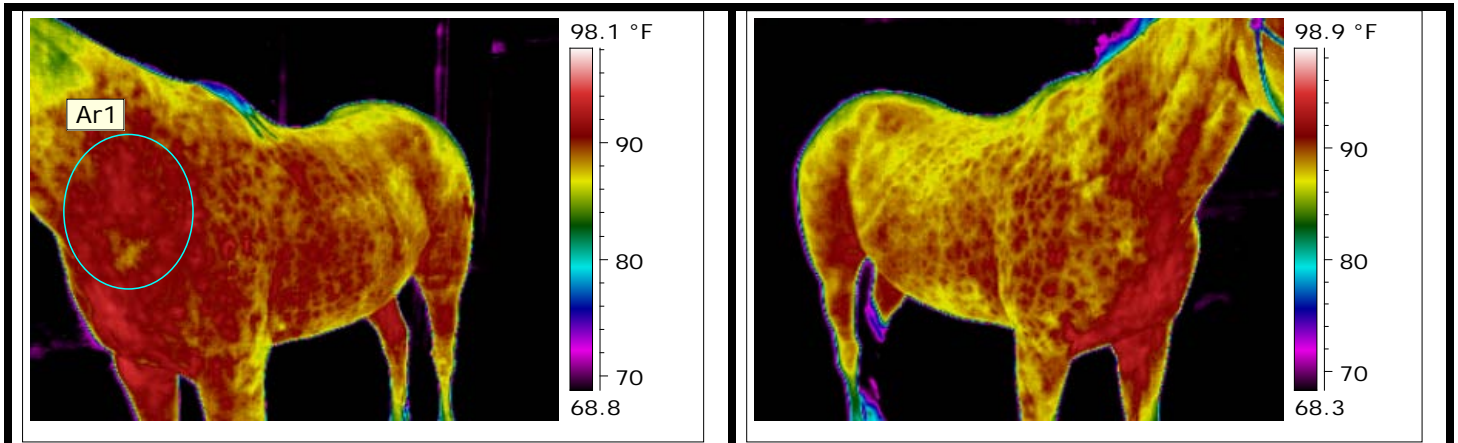


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Image.File name 15.jpg Image.Date 9/10/2013 Image.Time 8:16:58 PM
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Left neck base heat again apparent. Patient still shows a lot of heat related to exercise; heat/sweat is noted in plain views at the flanks and stifle regions.

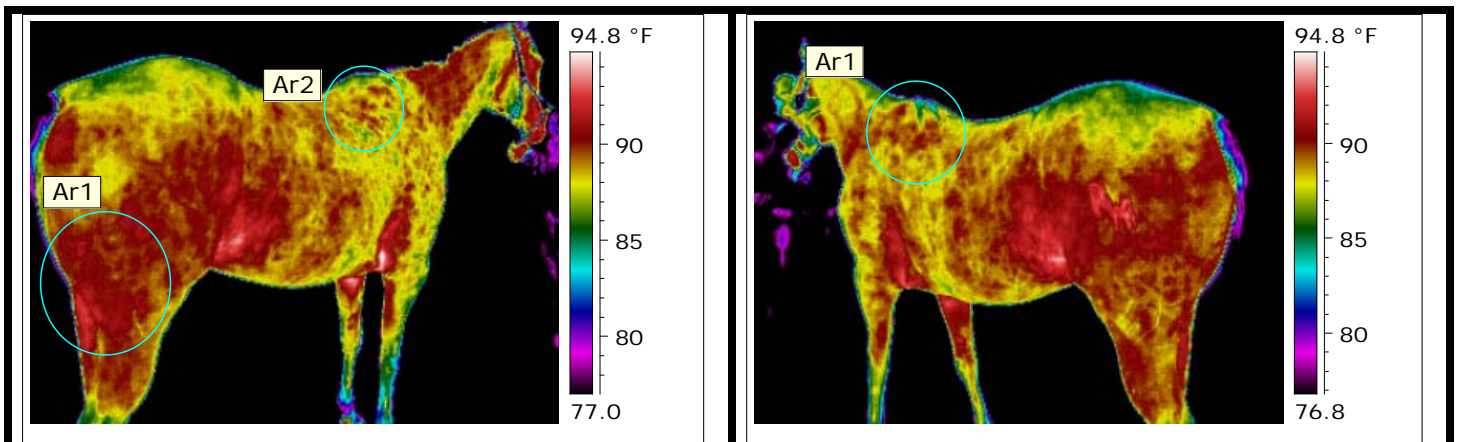


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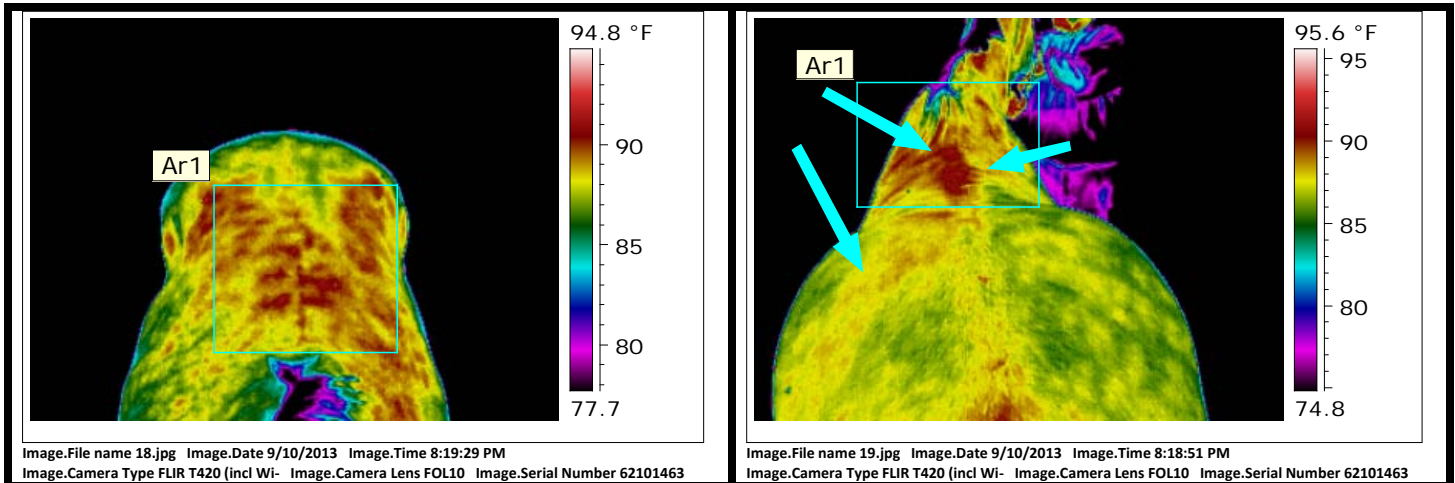
Increased heat at the right hamstrings; both trapezius muscles showing increased focal heat possibly related to saddle-fit problems.



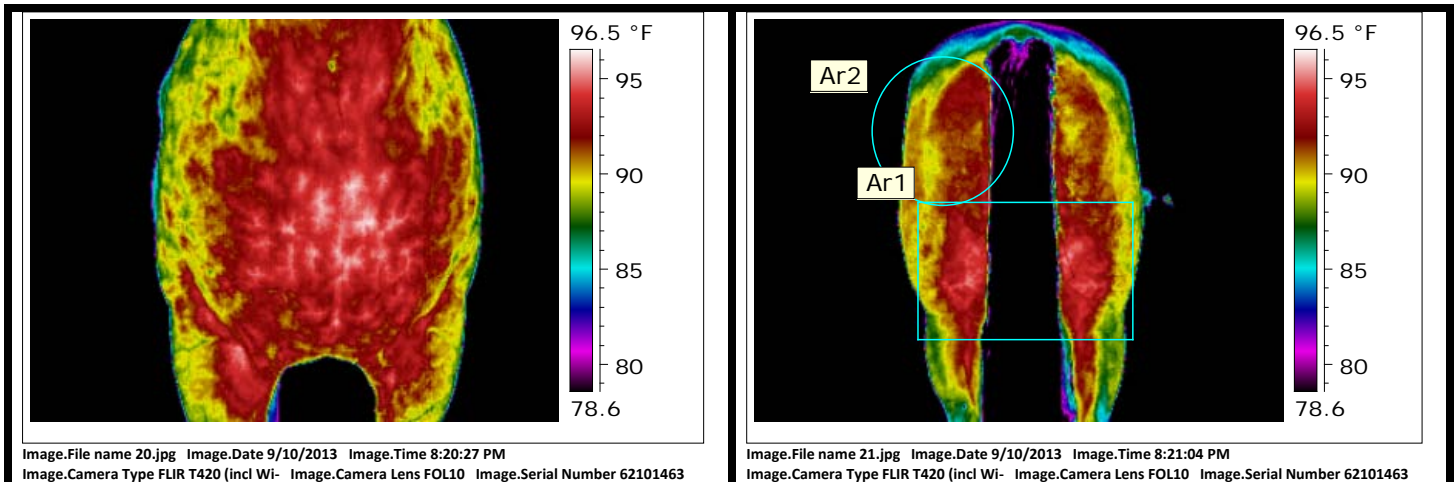
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Heat in the dorsal midline is typical due to the close interface of the skin with the dorsal spinous processes; however, patterning seen here is significant, and highlights inflammation in the back muscles, likely related to saddle-fit problems based on patterning; perpendicular streaking may also indicate kissing spine, and careful palpation is warranted along with radiographs. Proper saddle fit with rest and local therapy may dissipate a majority of this patterning. There is also streaking or banding seen in the left gluteal muscles consistent with muscle strain or pull.



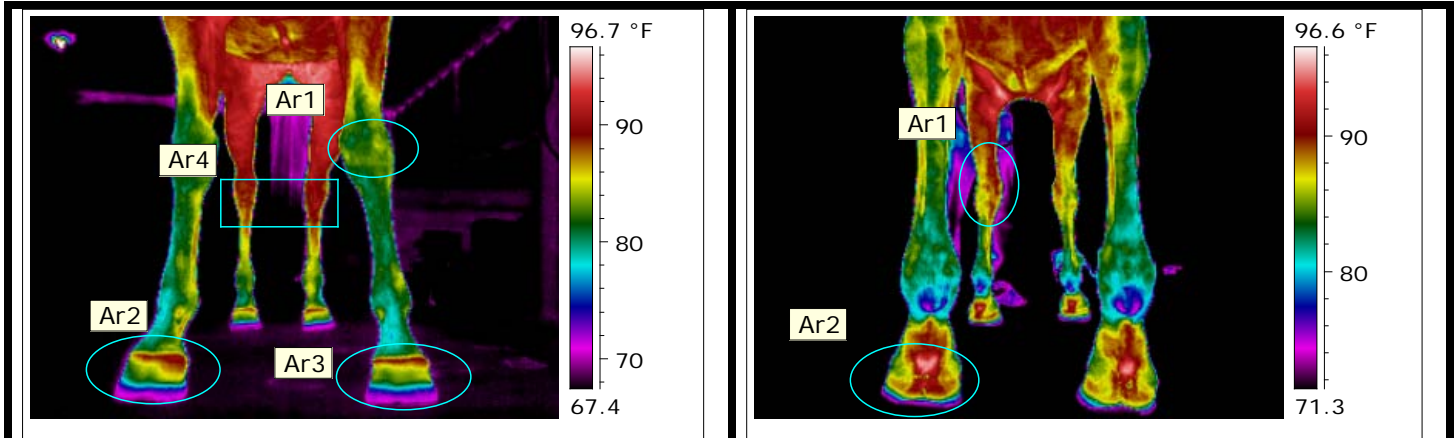
Increased heat at the pectorals secondary to recent exercise, though sometimes indicating primary strain or compensation for sore feet; increased heat at both hamstring insertions suggesting strain and an overall increase at the left suggesting imbalanced use and strain.



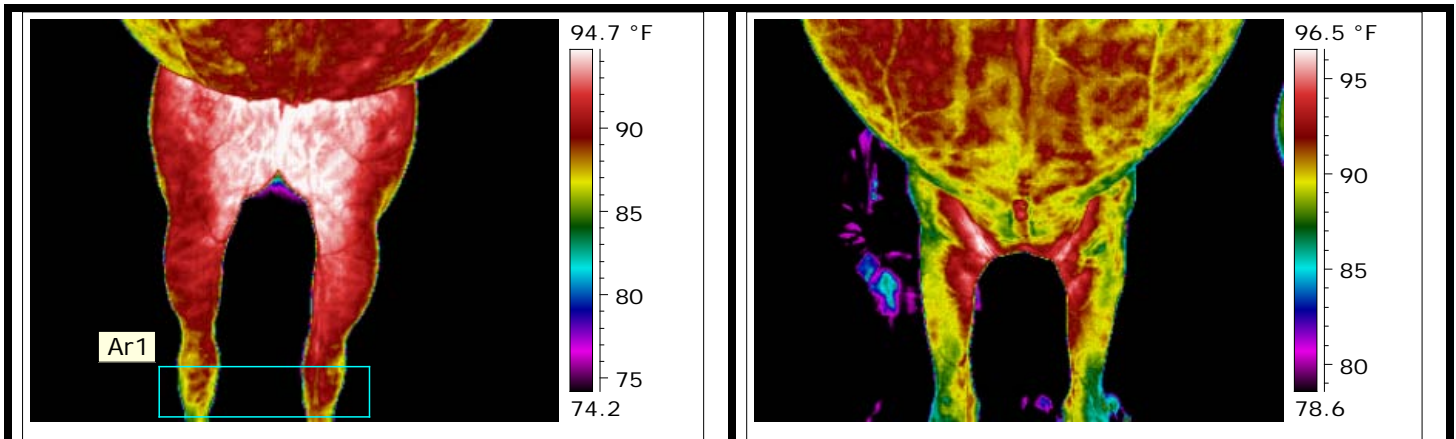
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Inflammation at the hooves, especially the medial RF and at the heels especially the LH; tarsitis at the LH. Early stress of the LF carpus.



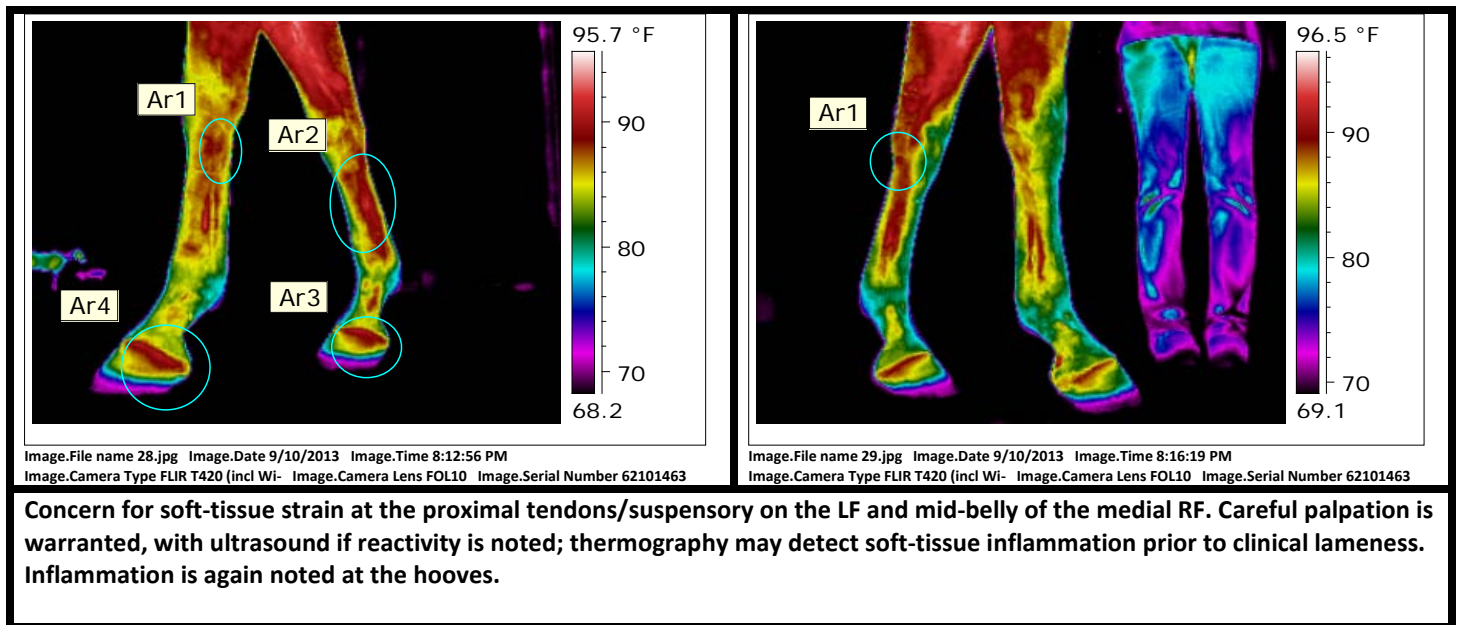
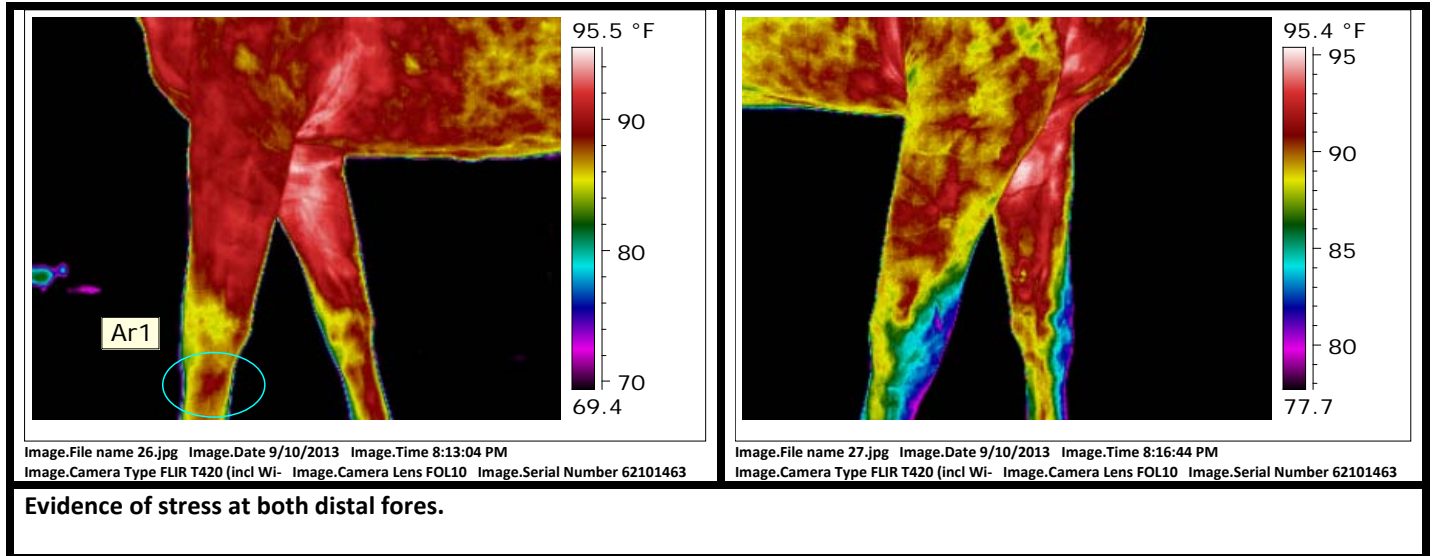
Patterning indicating tarsitis bilaterally, more on the left – flexions and radiographs are warranted. Overall increased patterning at the left as seen in other views suggesting imbalanced loading or primary strain.



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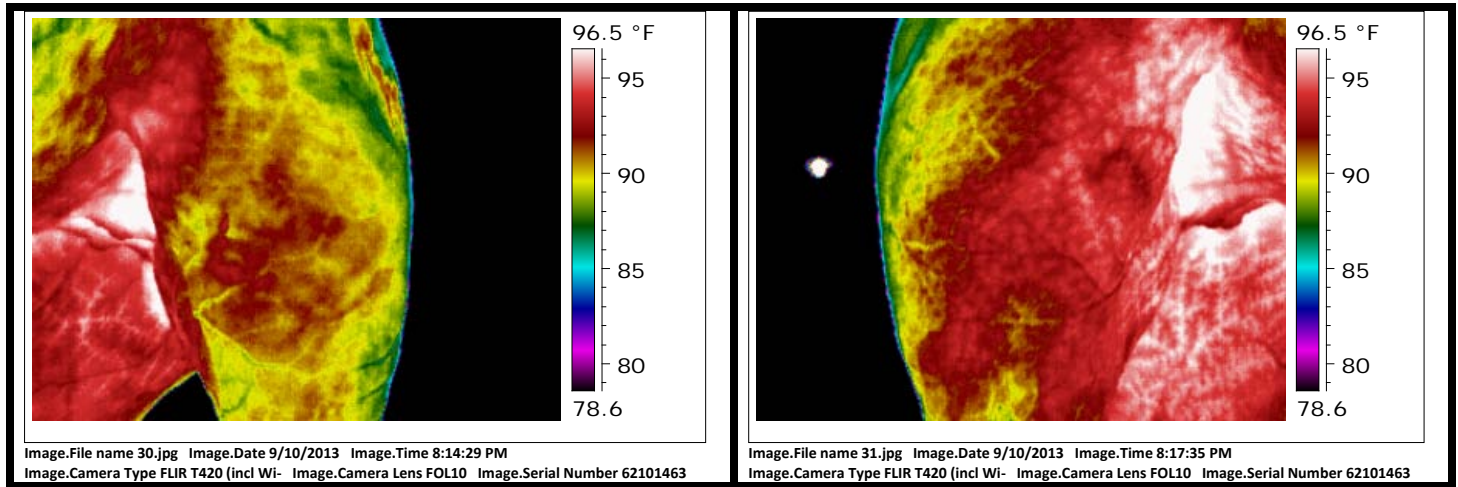




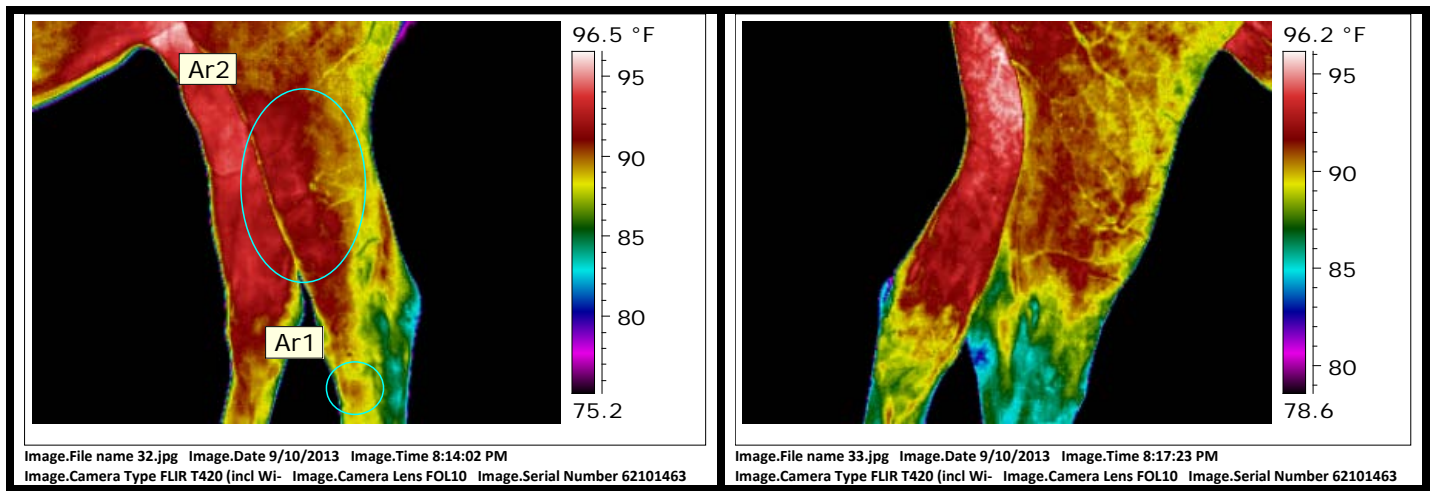
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Increased heat is noted as sweat in both plain views, interpretation is more difficult, but there is suspicion for some soft-tissue irritation at the stifle regions/quads bilaterally.



Extensor strain LH; tarsitis LH.

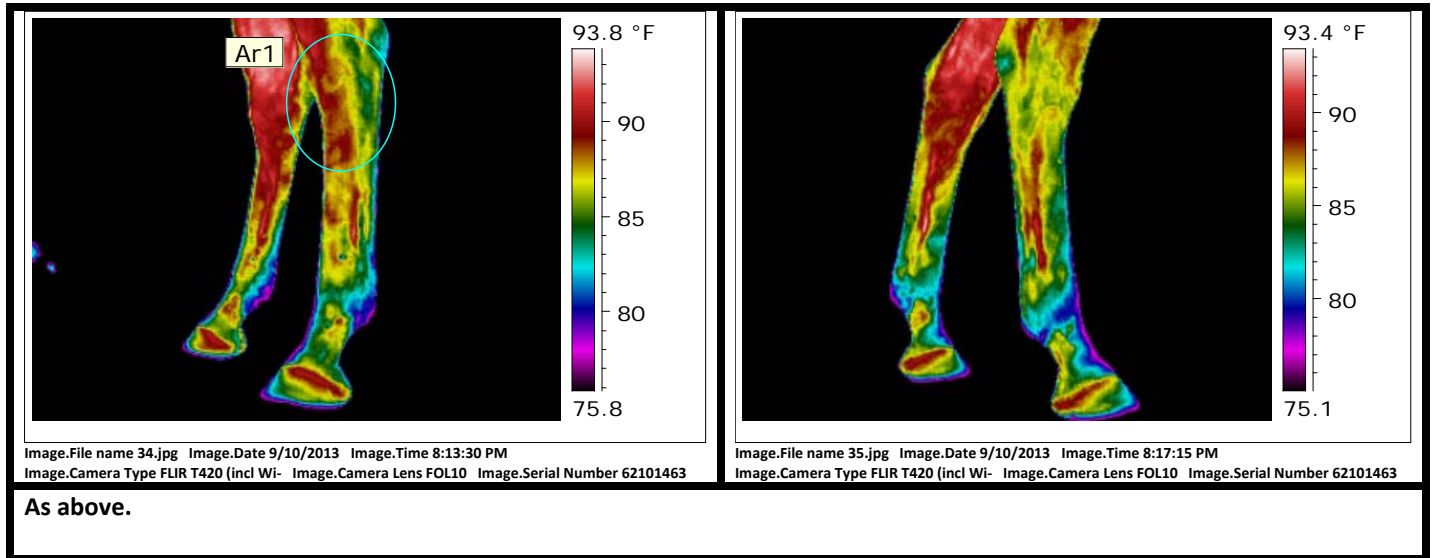


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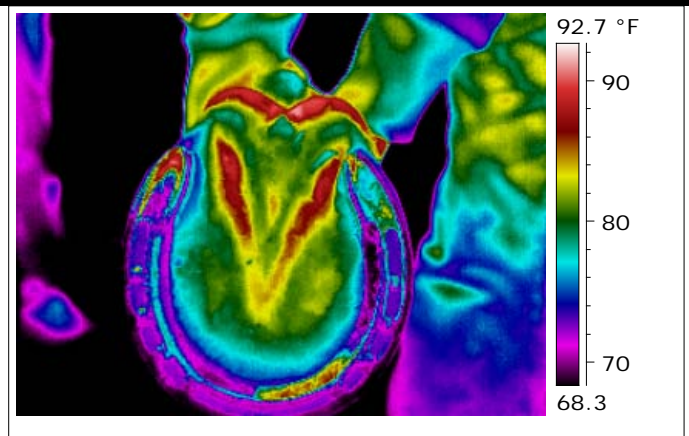
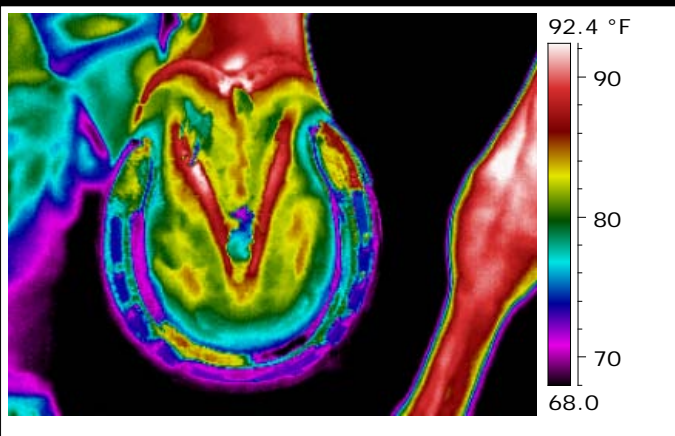


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Significant increase in heat at the front heels and frog sulci, especially LF; evidence of excess toe/sole (patient may be due for shoeing, appears upright, long).

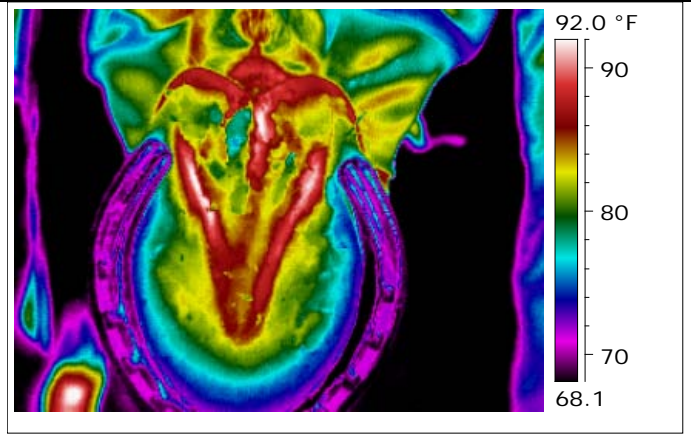
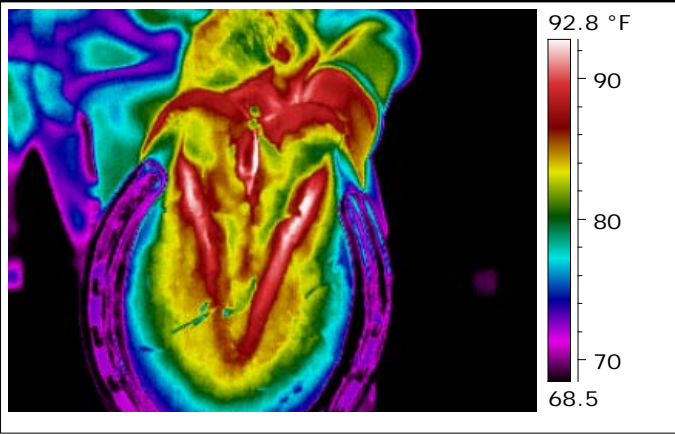


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LH shows increased heat through the sole, frog and heels, also noted on the RH.



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SUMMARY AND RECOMMENDATIONS:

Multiple issues are highlighted in this report, some of which are likely inter-connected/compensatory and related to the patient's job/history.

There is a focal hotspot on the left neck that would be consistent with the history; however, given the nature of the patterning, there is some suspicion that this is artifact. As such, careful palpation of the region is warranted, and range of motion assessment and further diagnostics if issues are noted.

There is significant patterning in the patient's topline suggesting chronic and ongoing saddle-fitting problems (which would certainly cause the historical issues) as well as suspicion for kissing spine. Careful palpation, radiographs, and saddle-fitting evaluation are all warranted. Focal treatment may be necessary in addition to rest, massage, ice, chiropractic, acupuncture, etc.

Inflammation is present at the hooves all around, and Barbie's feet appear somewhat upright; may be affected by thrush due to deep sulci. The LH is particularly increased. Hoof testers and baseline radiographs would be useful to assess for sole depth, wall thickness, and boney column alignment.

Soft-tissue strain is noted bilaterally at the fronts, LF insertions and RF more mid-shaft. Careful palpation is warranted, with ultrasound for baseline assessment of the flexor tendons and suspensories. This strain is often seen in horses off-loading for back pain and exacerbated by foot issues. Rest, ice, etc. may be needed.

LH extensor, gluteal, and hamstring stress is noted.

There is evidence of tarsitis bilaterally, more of the left, and flexions and radiographs are warranted to assess for any osseous changes and to determine a joint health plan.

Barbie may have some attitude and behavioral changes, but in this case these are secondary to pain and anxiety about pain during performance, not simply because she doesn't want to run or compete. There are many issues highlighted here, but they may be inter-connected to a degree (saddle-fit problems result in a patient not using herself correctly, subsequently stressing other structures, etc.). With careful evaluation, underlying issues can be teased out and treated, and she can return to successful performance. The back, feet, and hocks are significant, and the neck, distal forelimb soft-tissues, and LH muscles warrant careful palpation.

Thank You!

Reviewing Veterinarian: Joanna Robson, DVM, CVSMT, CMP, CVA, CSFT, CIT



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