UK THERMOGRAPHY ASSOCIATION

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Equine Thermography Case Study

Poor Performance

15.3 hh three-year-old TB Filly, flat racehorse in training

This racehorse was very well bred and there were high expectations of her. Unfortunately, however, she had mainly come last in her races. A vet had given her a thorough examination and could find no problems that might give a clue to her poor performance.

Pre- and post-exercise scans were taken (about 120 images) at an ambient temperature of 19°C.

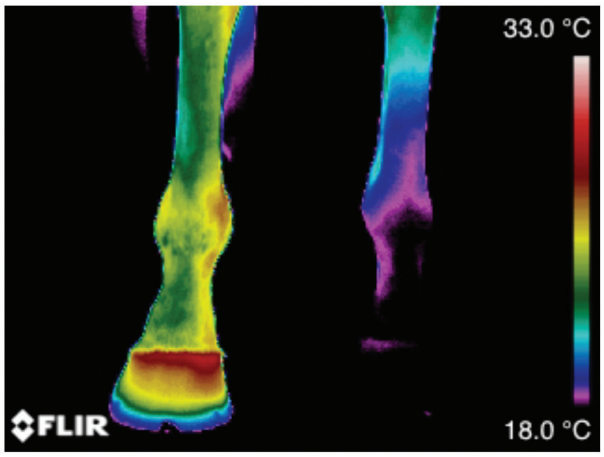

Figure 1. Distal fore limbs dorsal view – Pre-exercise

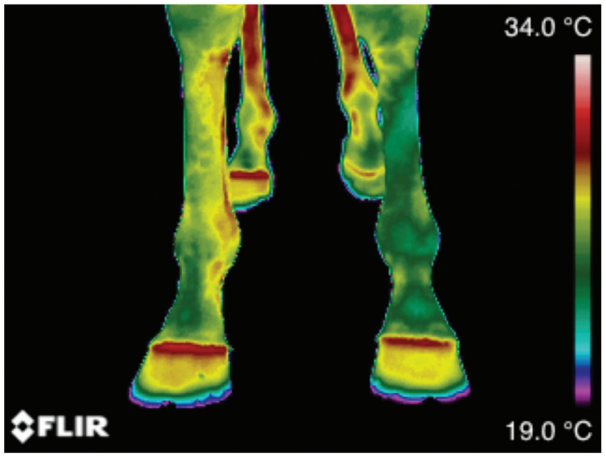

Figure 2. Distal fore limbs dorsal view – Post-exercise

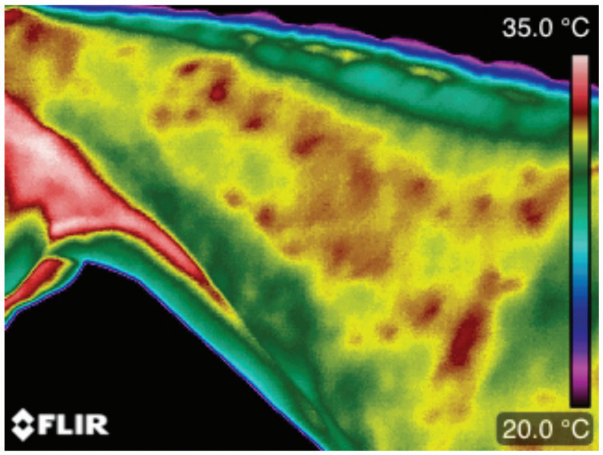

Figure 3. Distal fore limbs dorsal view – Pre-exercise

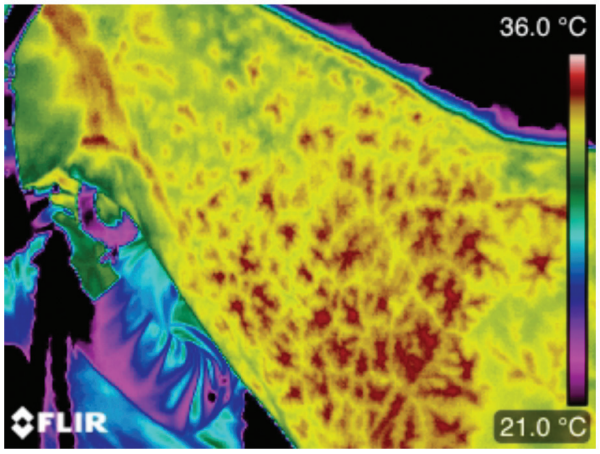

Figure 4. Distal fore limbs dorsal view – Post-exercise

Prior to exercise this horse was showing signs of ‘thermal cut-off’ (hypo thermatome) in three limbs: a normal dynamic process where the body (under the control of the ANS) reduces the blood flow to the distal limbs. This can be due to low ambient temperatures or standing still; in normal circumstances the blood flow and hence the thermal pattern return to normal after exercise.

Taking all of the images into consideration, looking at symmetry and analysing pre- and post-exercise images, it was possible to see that although symmetric this horse had an abnormal thermal pattern in the lateral neck views post exercise (increased heat at base of neck) and by analysing the distal fore views post-exercise it could be seen that there was a cooler ‘banding’ around the left front distal limb suggestive of cervical nerve damage/compression, adding to the evidence that it was the neck region that required further investigation by a vet.

After physiotherapy treatment and a change in the method of training, this horse went on to win her next two races.

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