Osteopathic treatment of 54 horses

Thermography as an aid to monitoring osteopathy

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CASE SELECTION

- 54 horses referred to us as **third** opinion
- All cases had failed to respond to conventional treatments
- No current pathological lesion could be found to account for ongoing lameness
- All cases showed clinical signs of somatic dysfunction
- All cases showed thermographic changes consistent with somatic dysfunction

Previous veterinary diagnosis 1

- *Back pain – unknown origin* 8
- No abnormality detected 6
- High suspensory strain 6
- *Hind limb lameness – unknown origin* 3
- Sacro-iliac disease 3
- *Generalised stiffness – unknown origin* 3
- *Neurological abnormality – unknown origin* 3
- Cervical arthropathy 3
- Behavioural problem 2
- Navicular syndrome 2
- Collapsed heels – forefeet 2

Previous veterinary diagnosis 2

- Back pain secondary to foot imbalance 1
- Poor schooling 1
- Locking patella 1
- Iliac thrombosis 1
- Poor saddle fit 1
- Radial chip fracture 1
- carpal DJD 1
- Strained suspensory branch 1
- Stress adaption mismatch 1
- Fetlock synovitis 1
- Head shaker 1

Somatic dysfunction
Clinical diagnosis

- 1 Static examination – correct symmetrical muscling, stands "square"
- 2 walk. } Free easy symmetrical movement
- 3 trot. } Easy transition into trot
- 4 turned short. Flexes neck and back, crosses hind legs
- 5 backed. Even stride, no lumbar spasm
- 6 palpation. } Normal symmetrical
  7 palpation under sedation. } Muscle tone

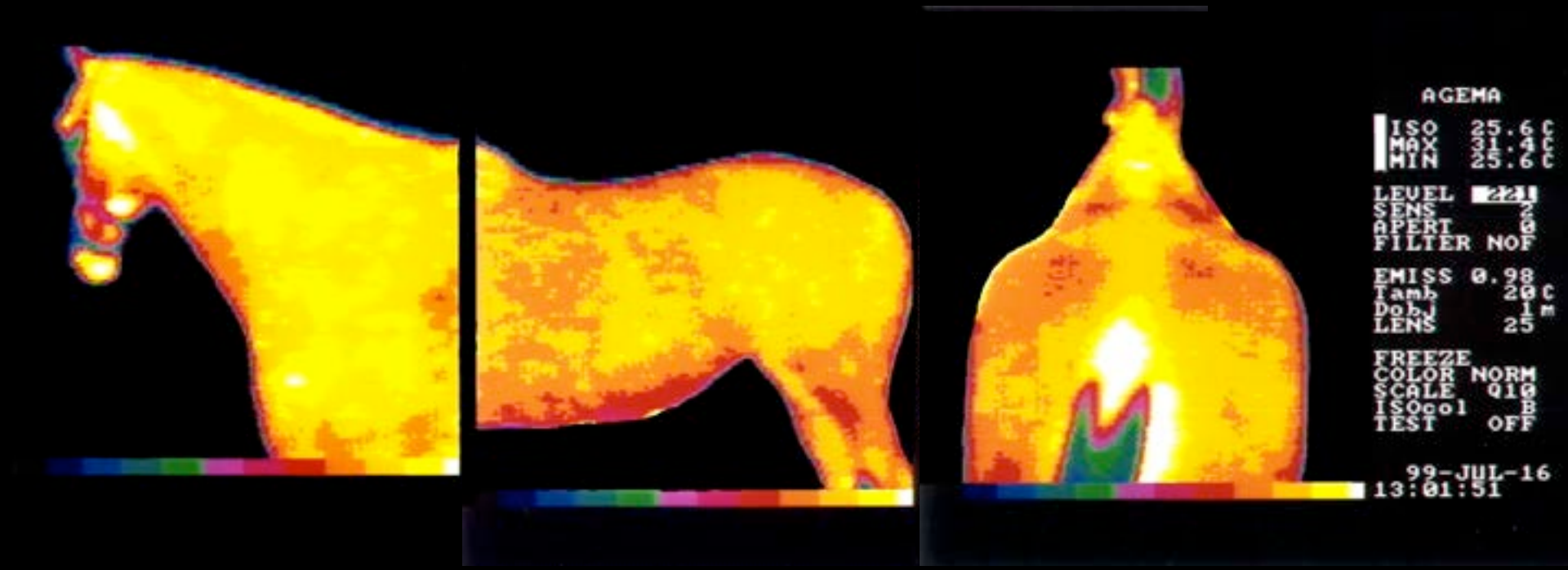
Somatic dysfunction - Thermography diagnostic signs

- 1/. At least 1 1/2 degree change from normal
- 2/. Asymmetric thermal pattern
- 3/. Heat :–
  - inflammation
  - coat length
  - Post exercise
- 4/. Cold :–
  - Increased sympathetic output
  - Coat length
  - Oedema
  - Temperature control

Thermography artefacts

- 1/. Ambient temperature
- 2/. Wet / sweat
- 3/. Draft
- 4/. Sunlight
- 5/. Coat length (fat)
- 6/. Coat colour / moult
- 7/. Reflected heat

Normal thermograms



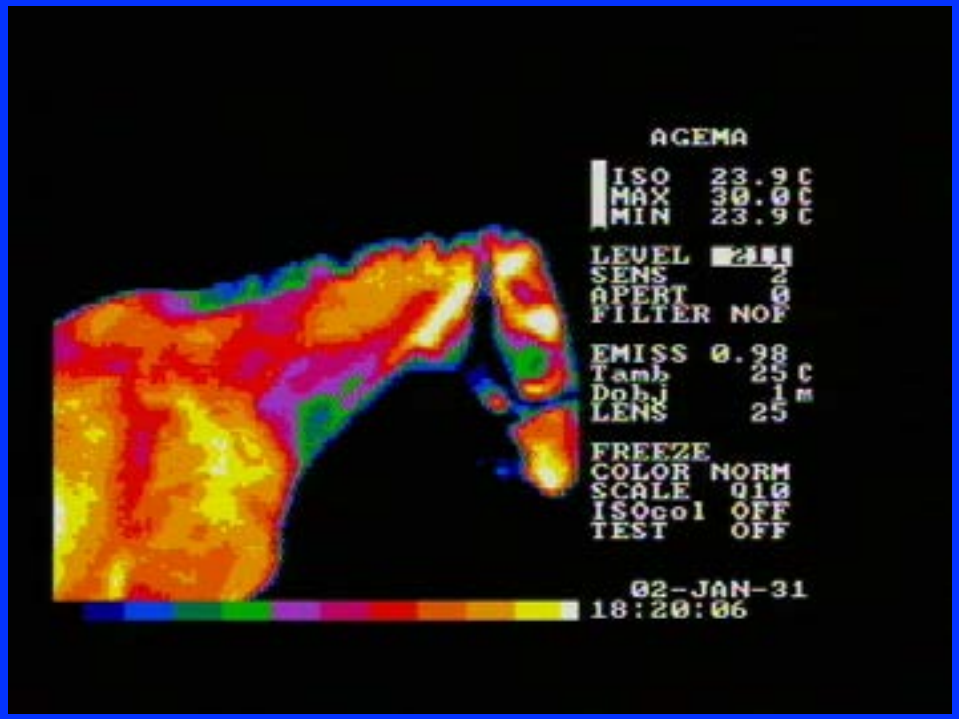
Occipito-atlantal atlanto-axial joints

- Clinically – will not take contact on bit
- Stiff upper neck
- May be apprehensive of palpation of OAA

mid neck

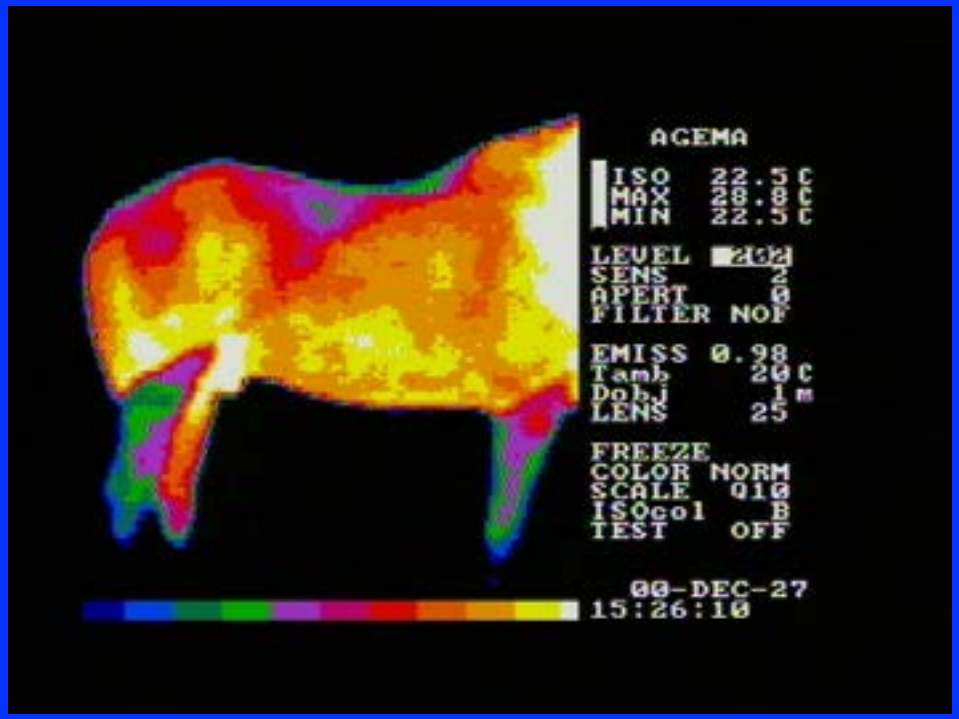
- Will not work from behind (p=0.02)
- Failure to jump correctly (p=0.015)
- Stiff neck recognised clinically.

Base of neck



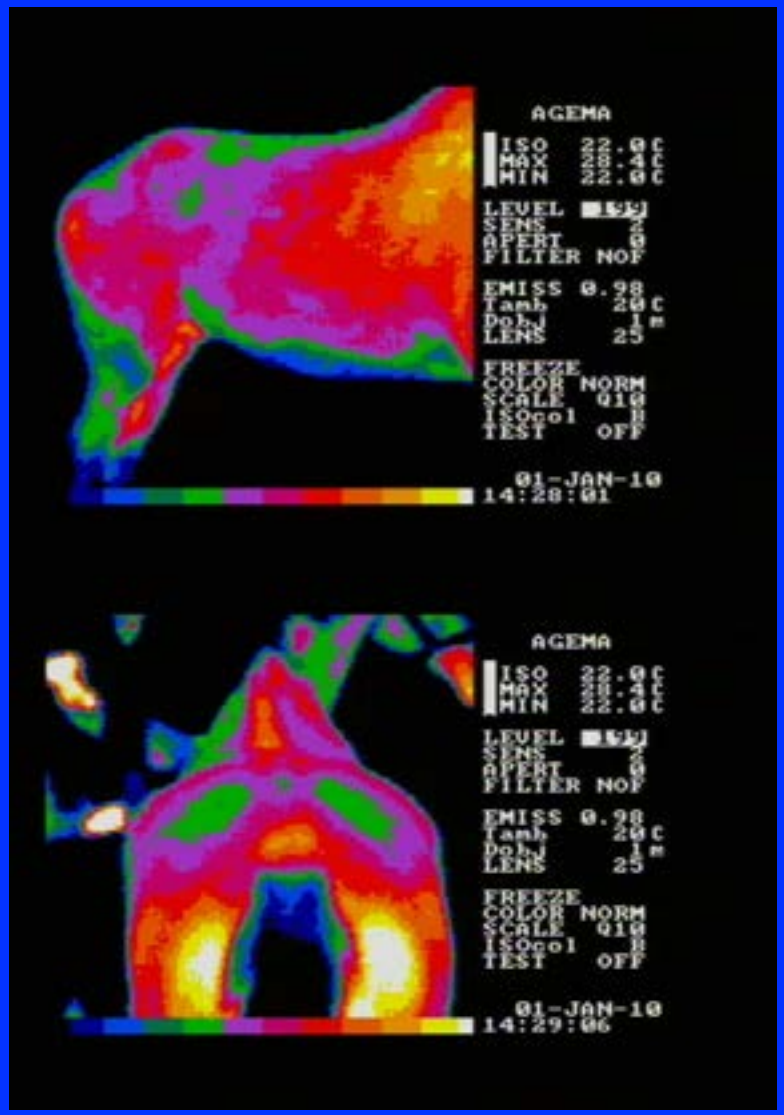
- Will not collect (p=0.05)
- Quarters affected >1.5degrees cold (p=0.02)

Twelfth Thoracic vertebra



- Will not form outline (p=0.5)
- Fails to bend neck when turned short (p=0.02)

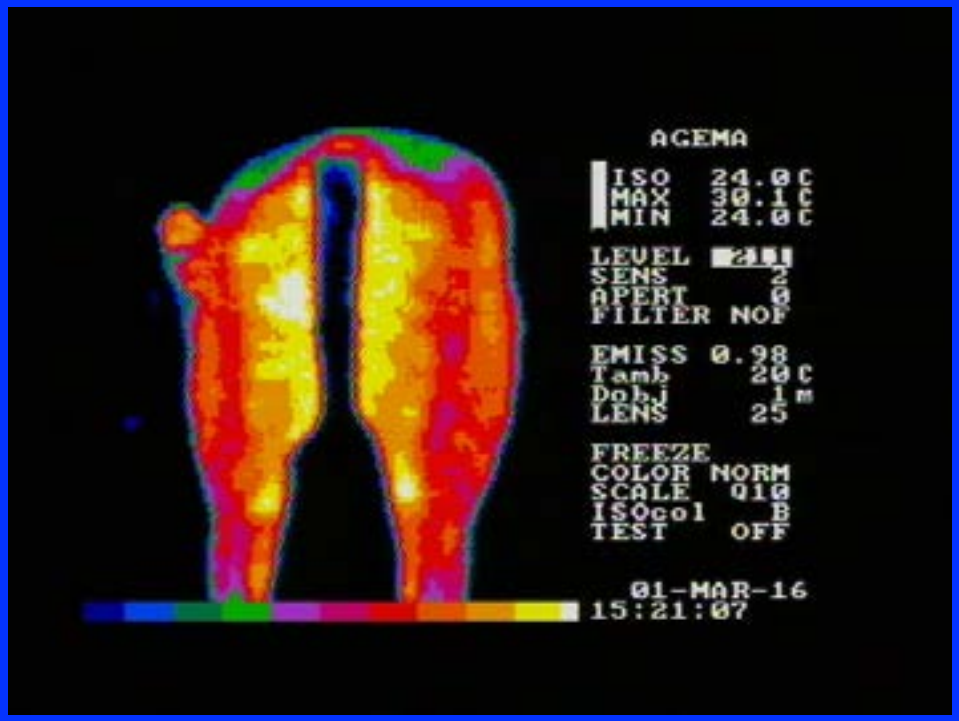
Lumbosacral strain



- Cold band in lumbo-sacral region shows significant relationship to changes over gluteal region (P=0.001)

- Cold longissimus dorsi muscles, with normal midline stripe, suggests cervico-thoracic junction affected

Sacral “tails”



- Significant correlation with cervico-thoracic changes (p=0.01)
- Associated with pelvic sensitivity (p=0.3)

Difficulty shoeing

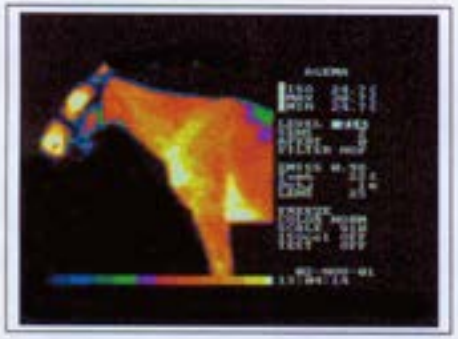
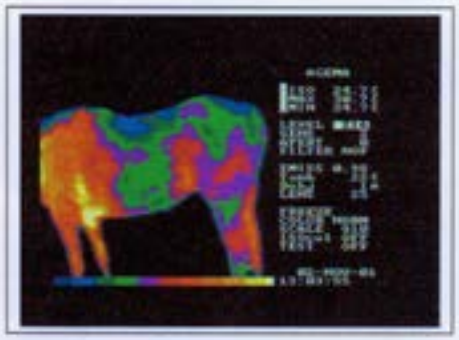
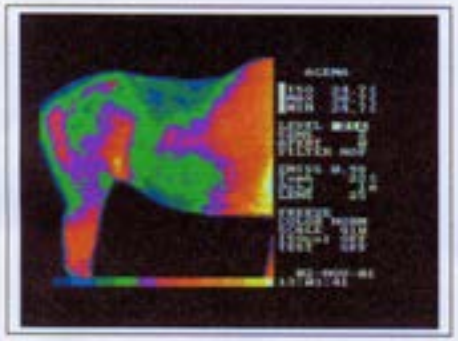
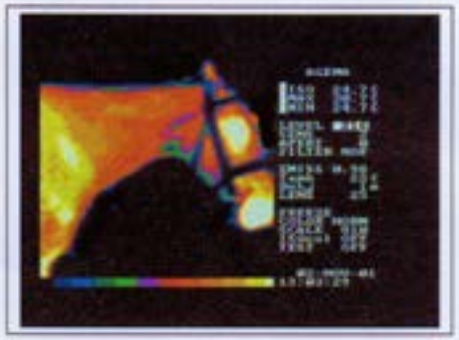
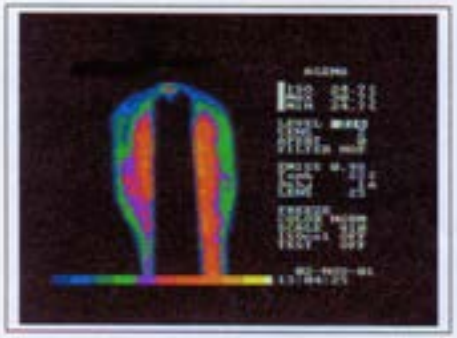
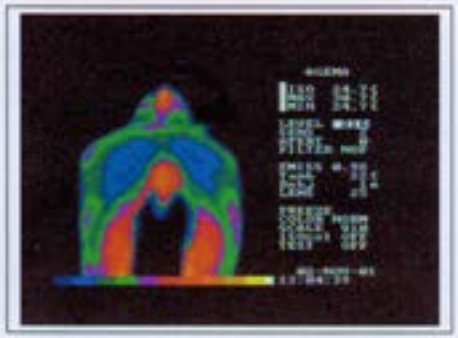
- Associated with sacral “tails” (P=0.02)
- Abnormal hind limb gait at walk (P=0.001)
- Often no significant abnormality observed at trot.

AVONVALE VETERINARY GROUP

THERMOGRAPHY REPORT

Owner:

Horse: Victor
Date: 01 November

AVONVALE VETERINARY GROUP

THERMOGRAPHY REPORT

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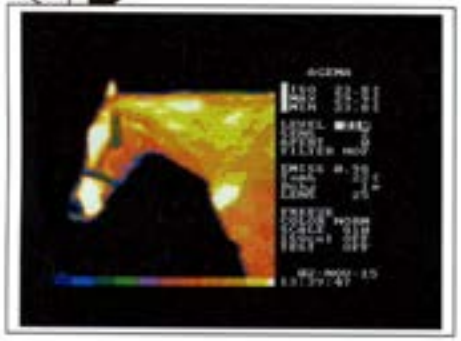
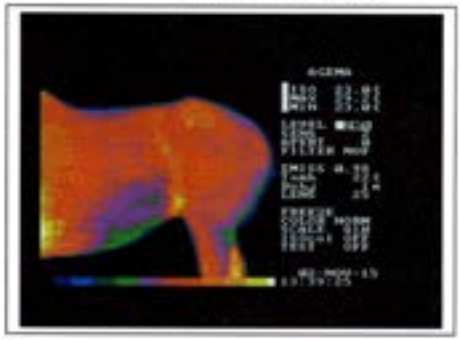
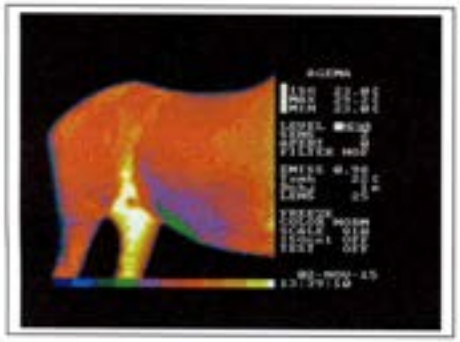
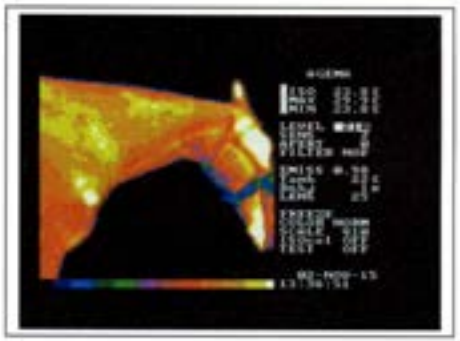
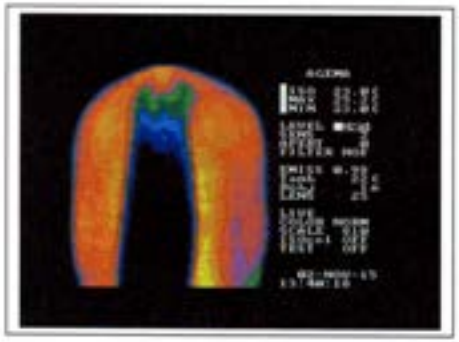
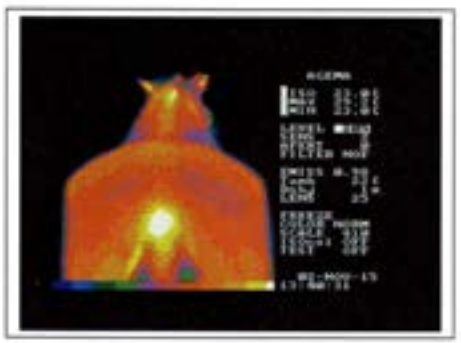
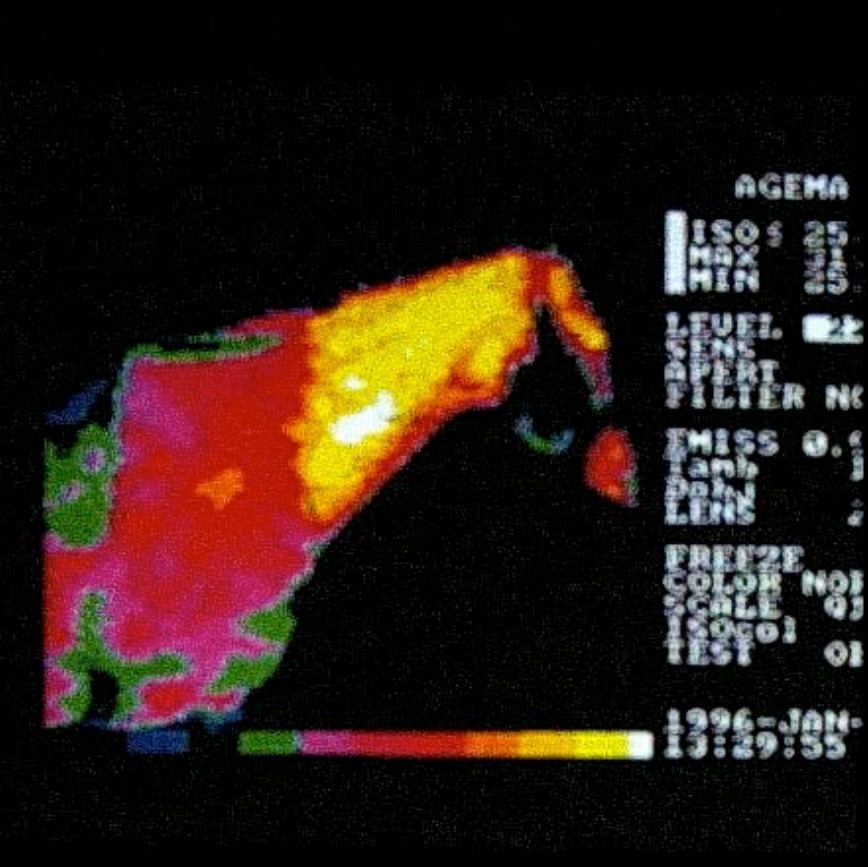
Horse: Victor
Date: 15 November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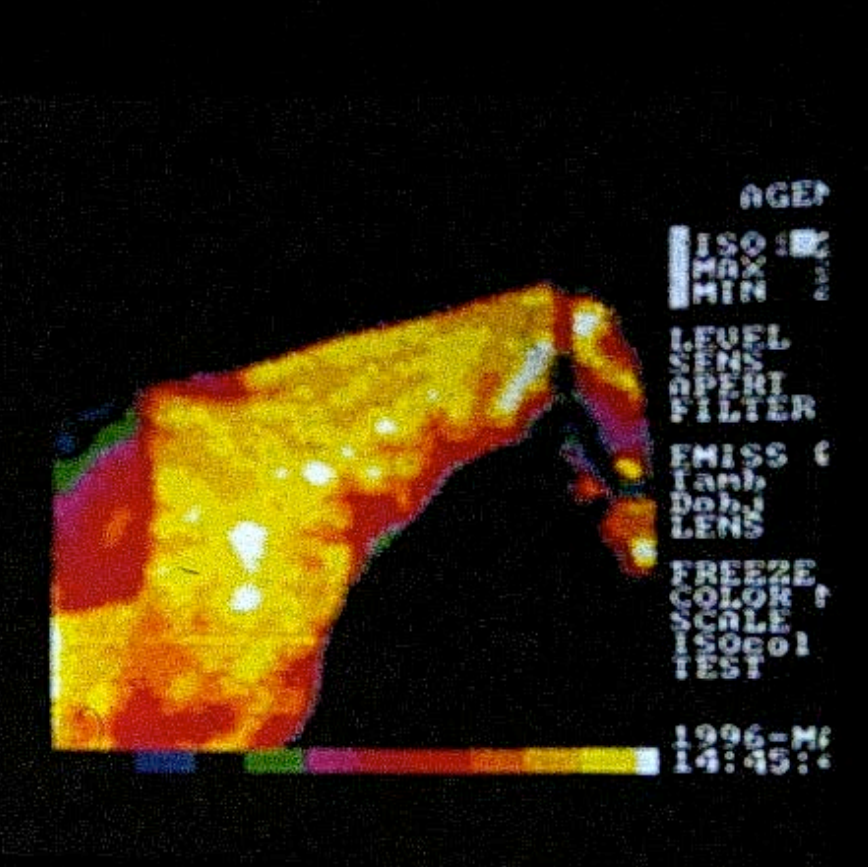
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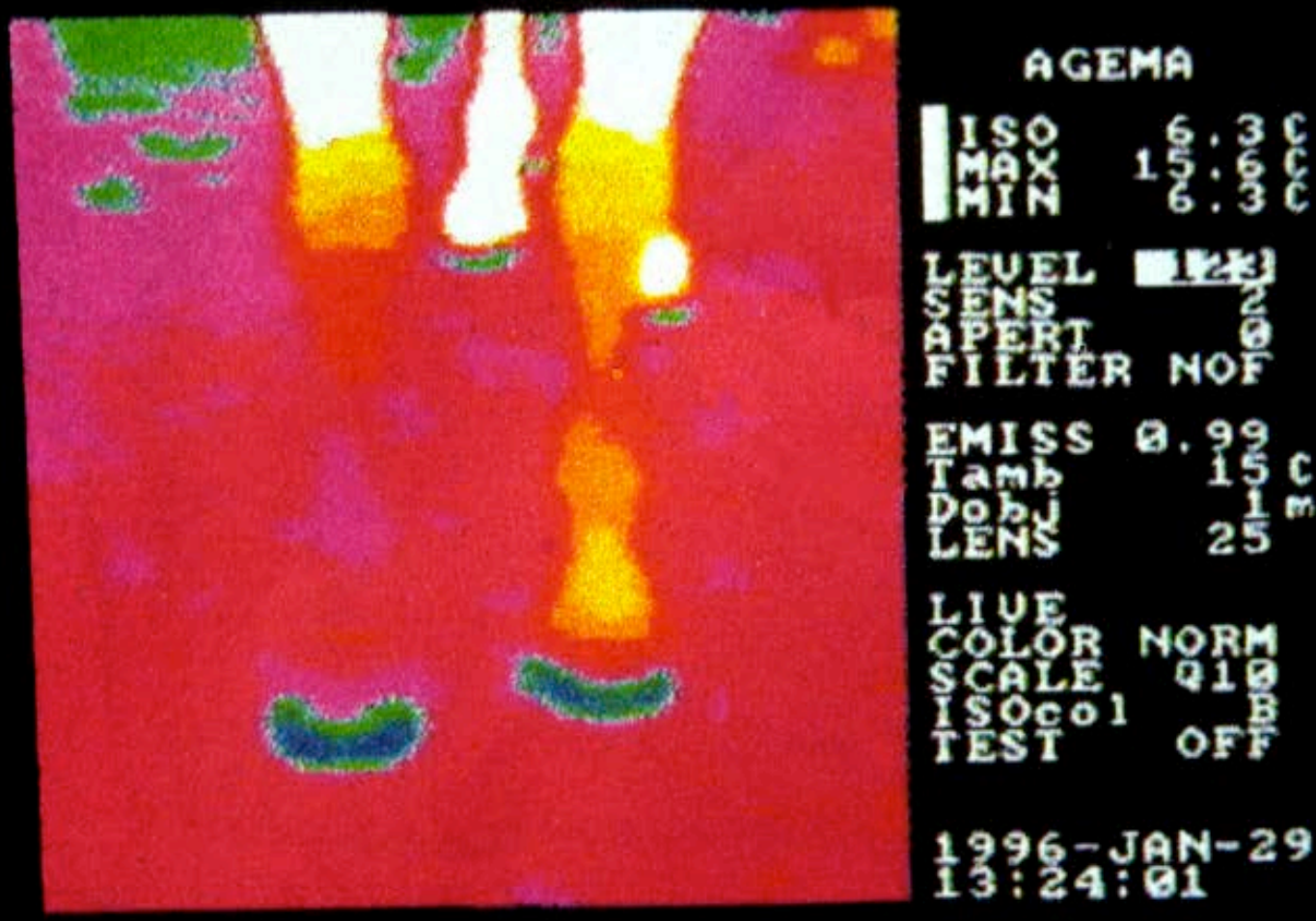
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Results of treatment
short term (<6 months)

- Retired 3
- Working OK 36 70.6%
- Working at lower level 9 17.6%
- Not able to work 6 11.8%

Results of treatment long term (> 12 months)

- 3 retired
- 19 lost to follow up

• Working OK	17	53.1%
• Working at lower level	9	28.1%
• Not able to work	6	18.8%
	32	100%

Results of working horses

	Work level	lower	same	better	
• 7 years	competed at olympics		1		
• 4 years				2	
• 3 years		2		2	
• 2 years		2	3	3	
• 1 year			1	3	
• 1 year but not broken to ride			2		
• Required ongoing physiotherapy		5			
	Total	**9**	**7**	**10**	**=26**