Hargreaves Test TCP_HRG_001

Purpose

To assess thermal hyperalgesia in the mouse paw.

Experimental Design

Minimum number of mutant animals: 7 males + 7 females

Age at test: 16-17 weeks

Sexual dimorphism:

Procedure

1. Baseline measurement
    1. Transfer mouse to the testing arena and allow to acclimate to the test environment.
    2. Ensure that the intensity and cut-off timer of the radiant heat source are set correctly.
    3. Position the light source below the platform and directed at the correct part of the paw.
    4. Turn the light source on and record the latency to paw withdrawal. The stimulus is terminated once a response is registered, or if the maximum exposure time is reached before the animal responds.
    5. Repeat the test so that each mouse is tested three times with the same paw.
3. Challenge
    1. The challenge is administered after the baseline measurement has been completed.
    2. Anaesthetise the mouse and administer the challenge injection.
5. Test 1
    1. After the specified length of time since the challenge injection, the mouse is re-tested using the same procedure as described for the baseline measurement.
7. Test 2
    1. After the specified length of time since the challenge injection, the mouse is re-tested again using the same procedure as described for the baseline measurement.

Notes

This procedure is a pilot study from the Pain Phenotyping Pilot

Parameters and Metadata

Inset material TCP_HRG_025_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Acrylic,

Idle intensity TCP_HRG_020_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: %

Options: 2, 10, 3, 4, 3-4,

Glass base temperature: settings TCP_HRG_018_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: C

Options: 30, 34, 32, 30-32,

Lid colour/opacity TCP_HRG_028_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Clear,

Length of acclimatisation period TCP_HRG_007_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: min

Options: 30 - 60, 60, 30,

Challenge TCP_HRG_012_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: CFA,

Time between challenge and test 2 TCP_HRG_017_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: Hours

Options: 144, 48,

Testing chamber dimensions TCP_HRG_029_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: cm

Options: 12.5 cm H x 10 cm W x 10 cm L, 12.7 cm H x 10.16 cm W x 10.16 cm L,

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Anaesthetic for challenge injection TCP_HRG_014_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Isoflurane,

Test 2: average latency to withdrawal TCP_HRG_006_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: s

Derivation: meanOfIncrements('TCP_HRG_005_001',1)

Tetrad colour/opacity TCP_HRG_024_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Clear,

Test 1: average latency to withdrawal TCP_HRG_004_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: s

Derivation: meanOfIncrements('TCP_HRG_003_001',1)

Radiant heat light source model TCP_HRG_033_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: 390 Plantar test head (Item #300TH),

Glass base temperature: measured TCP_HRG_019_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** false **Is Annotated:** false

Unit Measured: C

Options: 29-32,

Minimum time between stimulus presentation TCP_HRG_011_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: min

Options: 2,

Tetrad material TCP_HRG_023_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Acrylic,

Glass base heated during acclimatisation TCP_HRG_008_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Yes,

Test intensity TCP_HRG_021_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: %

Options: 15, 25, 100, 30,

Time between challenge and test 1 TCP_HRG_016_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: Hours

Options: 24,

Inset colour/opacity TCP_HRG_026_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: White opaque, Clear,

Radiant heat light source manufacturer TCP_HRG_032_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: IITC,

Test 2: latency to withdrawal TCP_HRG_005_001 | v1.0

seriesParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: s

Increments: 3, 1, 2,

Site of challenge injection TCP_HRG_013_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Plantar surface of right hind paw,

Experimenter ID TCP_HRG_034_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

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Number of repeats per paw TCP_HRG_010_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Right hind paw tested 3 times,

Test 1: latency to withdrawal TCP_HRG_003_001 | v1.0

seriesParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: s

Increments: 3, 2, 1,

Baseline: latency to withdrawal TCP_HRG_001_001 | v1.0

seriesParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: s

Increments: 2, 3, 1,

Disinfectant TCP_HRG_035_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Coverage Plus Working Solution, 1% Virkon, Clidox and 70% Ethanol,

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Glass base model TCP_HRG_031_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Model 400 Heated Base (Item #400G),

Baseline: average latency to withdrawal TCP_HRG_002_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: s

Derivation: meanOfIncrements('TCP_HRG_001_001',1)

Lid material TCP_HRG_027_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Acrylic,

Tetrad manufacturer TCP_HRG_022_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: IITC,

Time between baseline measurement and challenge injection TCP_HRG_015_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: Hours

Options: 24, 2, 0.5-1,

Glass base manufacturer TCP_HRG_030_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: IITC,

Maximum exposure time TCP_HRG_009_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: s

Options: 20, 30,

Delta2: difference in latency to withdrawal TCP_HRG_036_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** false

Unit Measured: s

Derivation:
sub(meanOfIncrements('TCP_HRG_001_001',1), meanOfIncrements('TCP_HRG_005_001', 1))
