Hargreaves Test JAX_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: either 8 weeks or 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

Baseline: latency to withdrawal JAX_HRG_001_001 | v1.0

seriesParameter

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

Unit Measured: s

Increments: 1, 2, 3,

Baseline: average latency to withdrawal JAX_HRG_002_001 | v1.0

simpleParameter

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

Unit Measured: s

Derivation: meanOfIncrements('JAX_HRG_001_001',1)

Test 1: latency to withdrawal JAX_HRG_003_001 | v1.0

seriesParameter

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

Unit Measured: s

Increments: 1, 2, 3,

Test 1: average latency to withdrawal JAX_HRG_004_001 | v1.0

simpleParameter

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

Unit Measured: s

Derivation: meanOfIncrements('JAX_HRG_003_001',1)

Test 2: latency to withdrawal JAX_HRG_005_001 | v1.0

seriesParameter

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

Unit Measured: s

Increments: 1, 2, 3,

Test 2: average latency to withdrawal JAX_HRG_006_001 | v1.0

simpleParameter

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

Unit Measured: s

Derivation: meanOfIncrements('JAX_HRG_005_001',1)

Length of acclimatisation period JAX_HRG_007_001 | v1.0

procedureMetadata

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

Unit Measured: min

Options: 30, 30 - 60, 60,

Glass base heated during acclimatisation JAX_HRG_008_001 | v1.0

procedureMetadata

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

Options: Yes,

Maximum exposure time JAX_HRG_009_001 | v1.0

procedureMetadata

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

Unit Measured: s

Options: 20, 30,

Number of repeats per paw JAX_HRG_010_001 | v1.0

procedureMetadata

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

Options: Right hind paw tested 3 times,

Minimum time between stimulus presentation JAX_HRG_011_001 | v1.0

procedureMetadata

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

Unit Measured: min

Options: 2,

Challenge JAX_HRG_012_001 | v1.0

procedureMetadata

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

Options: CFA,

Site of challenge injection JAX_HRG_013_001 | v1.0

procedureMetadata

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

Options: Plantar surface of right hind paw,

Anaesthetic for challenge injection JAX_HRG_014_001 | v1.0

procedureMetadata

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

Options: Isoflurane,

Time between baseline measurement and challenge injection JAX_HRG_015_001 | v1.0

procedureMetadata

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

Unit Measured: Hours

Options: 0.5-1, 2, 24,

Time between challenge and test 1 JAX_HRG_016_001 | v1.0

procedureMetadata

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

Unit Measured: Hours

Options: 24,

Time between challenge and test 2 JAX_HRG_017_001 | v1.0

procedureMetadata

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

Unit Measured: Hours

Options: 48, 144,

Glass base temperature: settings JAX_HRG_018_001 | v1.0

procedureMetadata

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

Unit Measured: C

Options: 30, 32, 34,

Glass base temperature: measured JAX_HRG_019_001 | v1.0

procedureMetadata

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

Unit Measured: C

Options: 29-32,

Idle intensity JAX_HRG_020_001 | v1.0

procedureMetadata

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

Unit Measured: %

Options: 2, 3, 10,

Test intensity JAX_HRG_021_001 | v1.0

procedureMetadata

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

Unit Measured: %

Options: 15, 25, 30, 100,

Tetrad manufacturer JAX_HRG_022_001 | v1.0

procedureMetadata

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

Options: IITC,

Tetrad material JAX_HRG_023_001 | v1.0

procedureMetadata

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

Options: Acrylic,

Tetrad colour/opacity JAX_HRG_024_001 | v1.0

procedureMetadata

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

Options: Clear,

Inset material JAX_HRG_025_001 | v1.0

procedureMetadata

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

Options: Acrylic,

Inset colour/opacity JAX_HRG_026_001 | v1.0

procedureMetadata

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

Options: Clear, White opaque,

Lid material JAX_HRG_027_001 | v1.0

procedureMetadata

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

Options: Acrylic,

Lid colour/opacity JAX_HRG_028_001 | v1.0

procedureMetadata

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

Options: Clear,

Testing chamber dimensions JAX_HRG_029_001 | v1.0

procedureMetadata

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

Unit Measured: cm

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

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Glass base manufacturer JAX_HRG_030_001 | v1.0

procedureMetadata

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

Options: IITC,

Glass base model JAX_HRG_031_001 | v1.0

procedureMetadata

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

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

Radiant heat light source manufacturer JAX_HRG_032_001 | v1.0

procedureMetadata

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

Options: IITC,

Radiant heat light source model JAX_HRG_033_001 | v1.0

procedureMetadata

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

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

Experimenter ID JAX_HRG_034_001 | v1.0

procedureMetadata

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

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Disinfectant JAX_HRG_035_001 | v1.0

procedureMetadata

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

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

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Delta2: difference in latency to withdrawal JAX_HRG_036_001 | v1.0

simpleParameter

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

Unit Measured: s

Derivation:
sub(meanOfIncrements('JAX_HRG_001_001',1), meanOfIncrements('JAX_HRG_005_001', 1))
