Edema JAX_EDM_001

Purpose

Complete Freund's Adjuvant (CFA) induced paw edema is used to measure local inflammatory response.

Experimental Design

Minimum number of mutant animals: 7 males + 7 females

Age at test: 17 weeks

Sexual dimorphism:

Procedure

1. Baseline measurement
   1. Turn on the callipers and check they are set to record millimetres.
   2. Anaesthetise the mouse.
   3. Once the mouse is anaesthetised, position the callipers on the ball of the mouse's paw. The callipers should touch and close the ball of the mouse's paw (just below the toes).
   4. Once the callipers are positioned correctly, the size of the edema should be recorded.
   5. Repeat the measurement three separate times.

3. Challenge
   1. The challenge should be administered shortly after the baseline measurement has been completed, while the mouse is still anaesthetised.
   2. Administer the challenge to the plantar surface of the right hind paw.

5. Test 1
   1. 24 hours after the challenge injection was administered, re-measure the mouse's paw.
   2. The mouse will not be anaesthetised and will need to be restrained.
   3. Measure the paw using the saw protocol as was used during the baseline measurement.

7. Test 2
   1. 48 hours after the challenge injection was administered, re-measure the mouse's paw, following the same protocol as was used during test 1.

Notes

This procedure is a pilot study from the Pain Phenotyping Pilot

Parameters and Metadata
Baseline: size of edema  JAX_EDM_001_001  | v1.0

seriesParameter


Unit Measured: mm
Increments: 1, 2, 3,

Baseline: average size of edema  JAX_EDM_002_001  | v1.0

simpleParameter


Unit Measured: mm

Derivation: meanOfIncrements(JAX_EDM_001_001',1)

Test 1: size of edema  JAX_EDM_003_001  | v1.0

seriesParameter


Unit Measured: mm
Increments: 1, 2, 3,
Test 1: average size of edema JAX_EDM_004_001 | v1.0

simpleParameter


Unit Measured: mm

Derivation: meanOfIncrements('JAX_EDM_003_001',1)

Test 2: size of edema JAX_EDM_005_001 | v1.0

seriesParameter


Unit Measured: mm

Increments: 1, 2, 3,

Test 2: average size of edema JAX_EDM_006_001 | v1.0

simpleParameter


Unit Measured: mm

Derivation: meanOfIncrements('JAX_EDM_005_001',1)
**Challenge** JAX_EDM_007_001 | v1.0

**Site of challenge injection** JAX_EDM_008_001 | v1.0

**Anaesthetic for challenge injection** JAX_EDM_009_001 | v1.0

**Site of edema measurement** JAX_EDM_010_001 | v1.0

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**Options:**

- CFA,
- Plantar surface of right hind paw,
- Isoflurane,
Options: Right hind paw,

**Time between baseline measurement and challenge injection** JAX_EDM_011_001 | v1.0

- **Unit Measured:** min
- **Options:** 1,

**Time between challenge and test 1** JAX_EDM_012_001 | v1.0

- **Unit Measured:** Hours
- **Options:** 24,

**Time between challenge and test 2** JAX_EDM_013_001 | v1.0

- **Unit Measured:** Hours
- **Options:** 24,
Unit Measured: Hours

Options: 48,

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**Calipers manufacturer** JAX_EDM_014_001 | v1.0

Procedure Metadata

Options: Mitutoyo,

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**Calipers model** JAX_EDM_015_001 | v1.0

Procedure Metadata

Options: Absolute AOS Digimatic (Item No. 500-196-30),

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**Experimenter ID** JAX_EDM_016_001 | v1.0

Procedure Metadata

Options: