

In vivo Pharmacology: Cantharidin Induced Inflammation In Mice

Species, strain, sex: mouse, CD1, male
 No. of animals per group: n=8
 Pharmacological control: Dexamethasone, Clarithromycin
 Routes of administration: topical, PO, IP, SC, IV, IM
 Treatment mode: prophylactic, therapeutic
 Duration of dosing: 1 day or upon request

Topically administered cantharidin induces increased release of MIP-2, MCP-1, KC, IL-6, IL-1 β , MPO and neutrophil accumulation in ear tissue. Sixteen hours after cantharidin application, ear swelling is observed, persisting for the next 7 days.

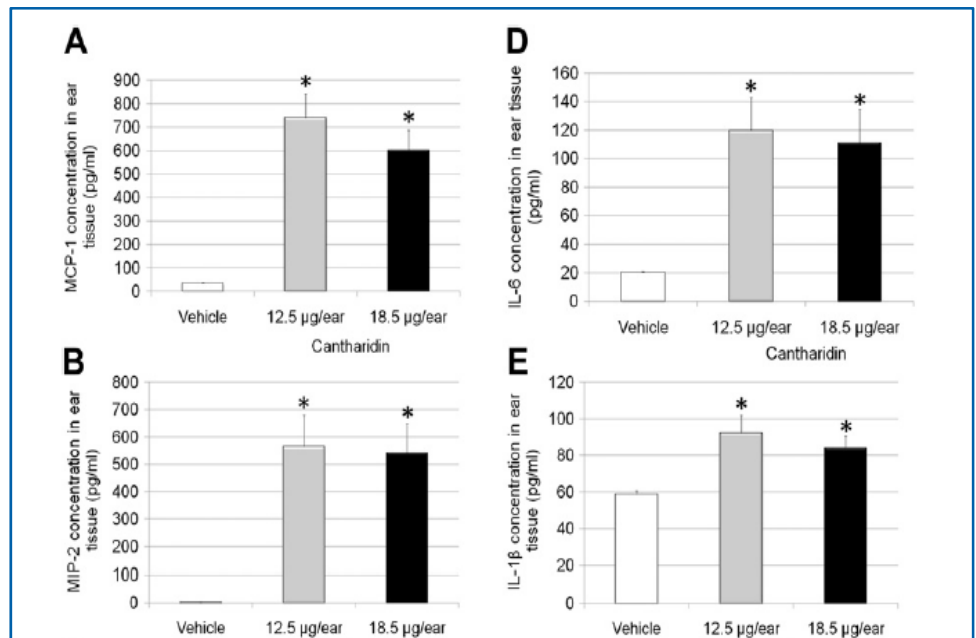
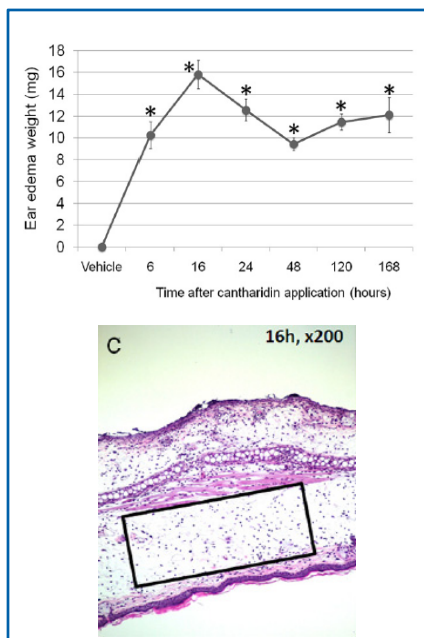
Main read-outs:

- ear weight

Facultative read outs:

- inflammatory mediators in ear homogenates
- histopathological analysis of ear tissue
- immunohistochemistry of ear tissue

The activity of test compounds is evaluated by ear weighing (main read-out). Ear tissue and other selected tissues can be stored for subsequent analyses (facultative read-outs).



Ivetic Tkalcovic et al., 2012

References

Ivetic Tkalcovic V, Hrvacic B, Bosnar M, Cuzic S, Bosnjak B, Erakovic Haber V, Glojnaric I. Cantharidin-induced inflammation in mouse ear model for translational research of novel anti-inflammatories. *Translational Research* (2012)160:137