

In vivo Pharmacology: Oxazolone Induced Acute Delayed Type Hypersensitivity (DTH) in Mice

Species, strain, sex:	mouse, Balb/c, male
No. of animals per group:	n=8
Pharmacological control:	dexamethasone
Routes of administration:	topical, PO, IP, SC, IV, IM
Treatment mode:	prophylactic, therapeutic
Duration of dosing:	upon request

DTH is induced by double topical administration of oxazolone (sensitization and challenge 7 days later) leading to antigen presentation, dendritic cell migration and T cell activation. The inflammatory reaction is observed as ear swelling 24h after challenge and the activity of test compounds is assessed by ear weighing. Ear tissue, lymph nodes and other selected tissues can be stored for subsequent analyses.

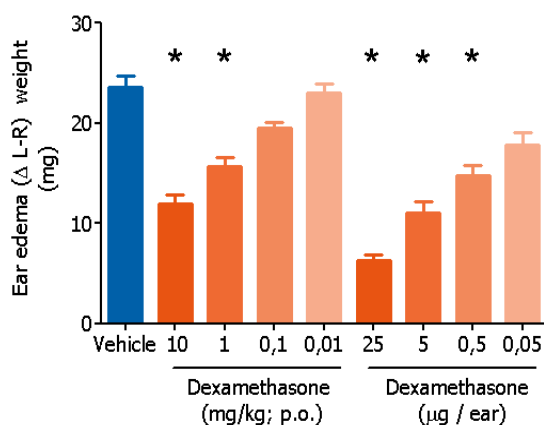
Main read-outs:

- ear thickness
- body weight

Facultative read outs:

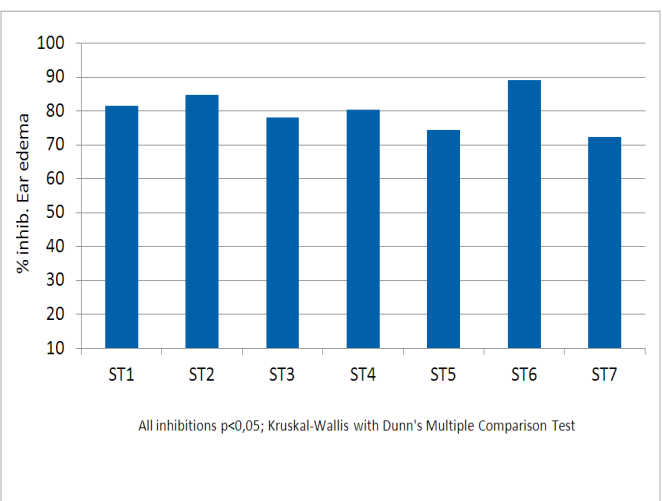
- inflammatory mediators in ear homogenates
- histopathological analysis of ear tissue and lymph nodes
- immunohistochemistry of ear tissue and lymph nodes

Efficacy of dexamethasone in OXA-DTH in mice



*p<0,05 vs. Vehicle; Kruskal-Wallis with Dunn's multiple comparison test

Reproducibility of response to dexamethasone



References

Ivetić Tkalčević V, Čužić S, Dominis Kramarić M, Parnham MJ, Eraković Haber V. Topical azithromycin and clarithromycin inhibit acute and chronic skin inflammation in sensitized mice, with apparent selectivity for Th2-mediated processes in delayed type hypersensitivity. *Inflammation* (2011) 35:192