CENTRAL NERVOUS SYSTEM

Grip strength

Grip strength is a measurement used to assess physical competency. The grip strength test is similar to the hand grip test used in the clinic. This test can be used in the search for both a therapeutic i.e. muscle relaxants or collateral effect i.e. some anticonvulsants drugs [1,2].

Species: *Mus musculus* (CD1)
Number of animals/group: 9 - 10 animals
Route of administration: upon request
Treatment mode: upon request

Main read-outs: grip strength

Validation Data

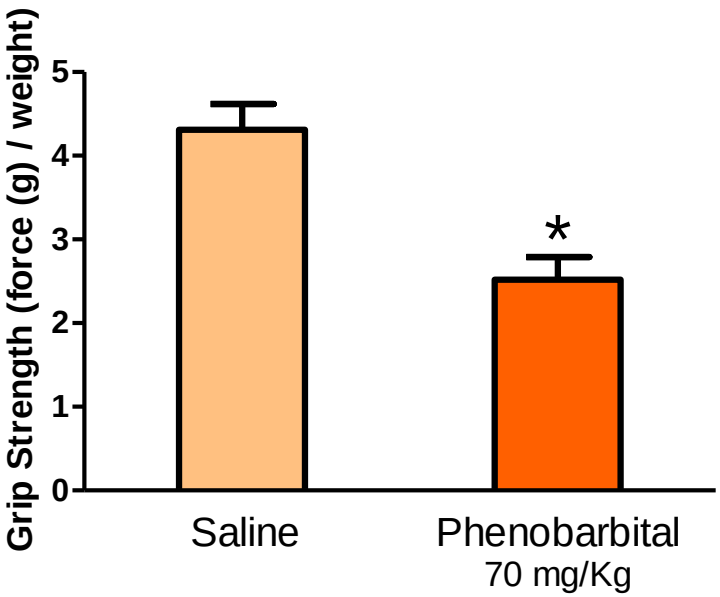

Figure: Grip strength represented as the average of three subsequent measurements (g) divided by the animal weight. Phenobarbital-treated animals decrease their grip strength compared to saline-treated animals. Each column represents media ± standard error. Non-paired student t-test was used for statistical analysis *,$P < 0.05$.

To avoid bias and to allow reproducibility all *in vivo* experiments follow the ARRIVE guidances[3]. Rat colony originated from Charles River Laboratories is breed and maintained in SPF conditions. Raw data are inspected by quality assurance unity. The experimental procedures were approved by the CIEnP Committee on the Ethical Use of Animals.

References:

1 –Löscher W, Nolting B. The role of technical, biological and pharmacological factors in the laboratory evaluation of anticonvulsant drugs. IV. Protective indices. Epilepsy Res. 1991;9(1):1-10.
2 -See S, Ginzburg R. Skeletal muscle relaxants. Pharmacotherapy. 2008; 28(2):207-13.
3 - Kilkenny C, Browne WJ, Cuthill IC, Emerson M, Altman DG. Animal research: reporting in vivo experiments: The ARRIVE guidelines. PLoS Biol. 8 (6): e1000412, 2010.

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