This experimental model easily creates generalized nitric oxide (NO) deficiency that if prolonged, is responsible for a progressive increase in arterial pressure associated cardiovascular remodeling.

Pathophysiological features

Cardiovascular features

- Progressive increase of mean arterial pressure
- Cardiac and vascular remodeling if treatment period is sufficiently prolonged

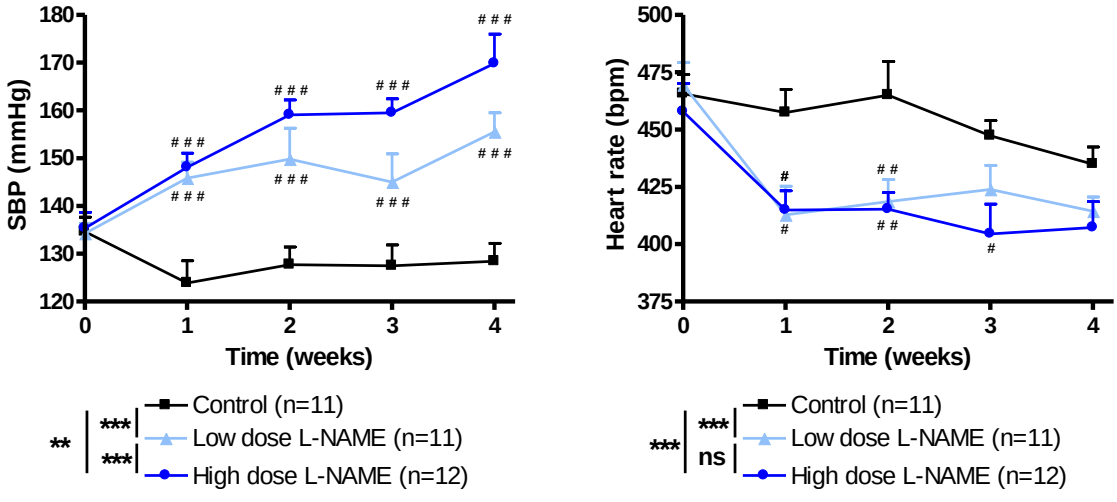

*Figure 1 Evolution of systolic blood pressure (SBP, left panel) and heart rate (HR, right panel) in control and L-NAME-treated rats administered in drinking water. **P<0.01, ***P<0.001 two-way ANOVA followed by a modified Student's t-test for multiple comparisons: # P<0.05, # # P<0.01, # # # P<0.001. (Pelvipharm internal data)*

Erectile function features

- Dramatic impairment of erectile responses to electrical stimulation of the cavernous nerve after 4 weeks of L-NAME administration (10 or 50 mg/kg/d in drinking water) in anesthetized rats (figure 2).
- Dose-dependent decreased erectile responses to electrical stimulation of the cavernous nerve following acute L-NAME intravenous injection (1 or 3 mg/kg) in anesthetized rats (figure 2).

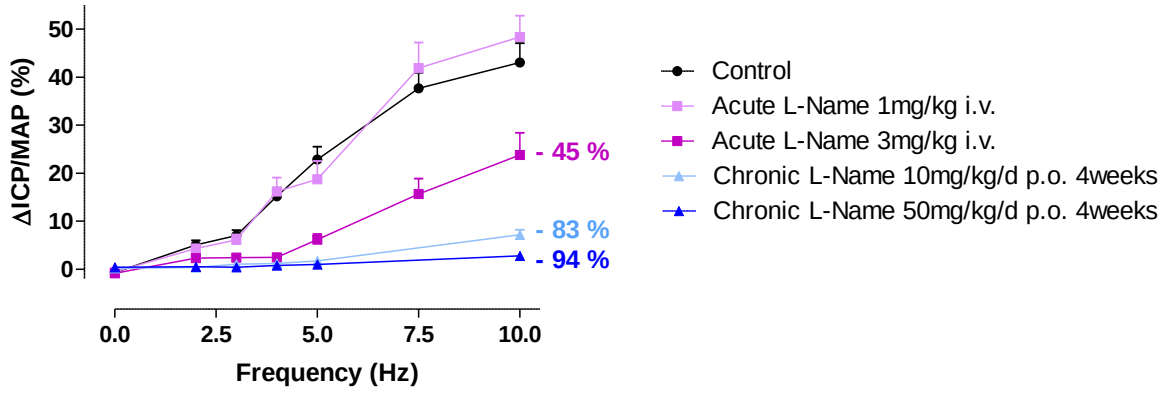

Figure 2: Effects of acute L-NAME (1 or 3 mg/kg i.v.) and chronic L-NAME (10 or 50 mg/kg/d p.o. for 4 weeks) on intracavernosal pressure (ICP) after ES CN in anesthetized rats (Pelvipharm internal data).

Summarized methodology

- Chronic L-NAME is administered orally in drinking water
- Acute L-NAME is administered intravenously at the time of experiment

Related Pelvipharm bibliography:

Non disclosable information for confidentiality reasons

NB: Pelvipharm will gladly study the feasibility to fit this experimental model to its client's needs.