



Drug induced penile erection

A MODEL TO ASSESS PROERECTILE ACTIVITY

Model

This model is used to assess the ability of a drug candidate to induce penile erection in anesthetized rats.

Species

Rat

Interest

Penile erection is induced out of sexual context and without any type of stimulation. This model assesses the ability of drug candidate to trigger penile erection.

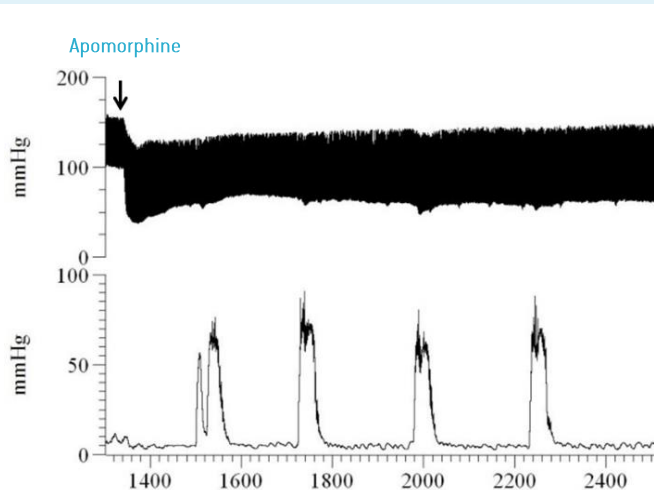
Model Description

- Procedure is performed under anesthesia.
- Erectile responses are monitored through measure of intracavernous pressure (ICP).
- This model has been validated using apomorphine, a non selective dopaminergic receptor agonists (e.g. quinpirole)

Parameters evaluated

- Time to onset of 1st erectile response.
- Number of erectile responses.
- Amplitude of erectile response: mean, maximal value, and area under the curve of the ICP (ICP mean, ICP max and AUCS respectively) expressed relative to the corresponding blood pressure (BP).

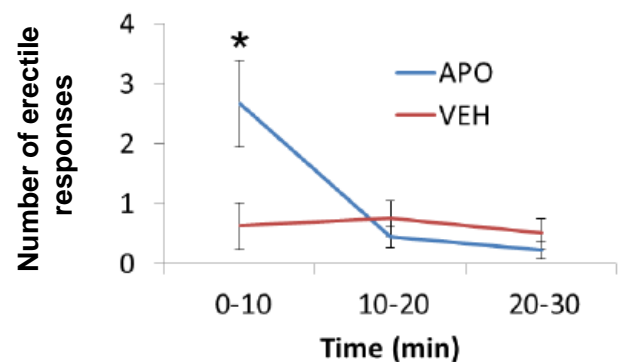
Recording of intracavernosal pressure



Erectile responses appear as transient rises in ICP (lower curve) which were close to the values of systolic blood pressure (upper curve).

Apomorphine injection at the arrow. Time in abscissa in seconds.

Apomorphine induces penile erections



The number of erectile responses is significantly increased within 10 min following apomorphine injection compared to a vehicle injection.

* P < 0.05