Your partner in Urology

UROsphere

In vivo

SIMULTANEOUS RECORDING OF INTRAURETHRAL AND INTRAVESICAL PRESSURES

A MODEL FOR STRESS OR MIXED URINARY INCONTINENCE

MODEL

In this model it is possible to simultaneously record intravesical and intraurethral pressures (in anesthetized animals) which are normally coordinated, but are modified as a result of ageing or spinal cord injury.

SPECIES

Rat, guinea-pig

INTEREST

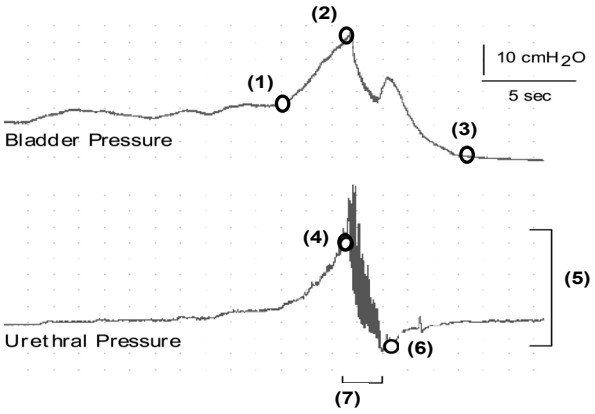
- This model is suitable for testing compounds for effects on urethral and intravesical pressures and coordination between the bladder and urethra.
- Compounds having an effect in this model include α-adrenoceptor agonists and PDE inhibitors.

MODEL DESCRIPTION

- Intravesical and urethral pressures are simultaneously recorded.
- Test compounds can be administered *via* various routes (i.v., p.o., i.g., s.c. or i.p.) and parameters measured for up to two hours post-administration.

PARAMETERS EVALUATED

- Maximum urethral pressure
- Urethral basal pressure
- Urethral relaxation during micturition
- Micturition pressure
- Micturition volume
- Basal intravesical pressure and threshold pressure for micturition



Simultaneous measurement of urethral and bladder pressure in anesthetized male rat.

Circles illustrate points at which different cystomanometric parameters are calculated: threshold pressure (1), micturition pressure (2), basal pressure (3), maximal urethral pressure (4), amplitude of urethral relaxation (5), basal urethral pressure (6), and duration of urethral relaxation (7).

SCIENTIFIC PUBLICATIONS

- Lluel P et *al*, *Am J Physiol* **284**: R1287-95, 2003
- Kakizaki H and De Groat WC, *J Urol* **158**: 1562-7, 1997
- Jung SY et *al*, *J Urol* **162**: 204-12, 1999
- Wibberley A et *al*, *Br J Pharmacol* ***136***: 399-414, 2002