

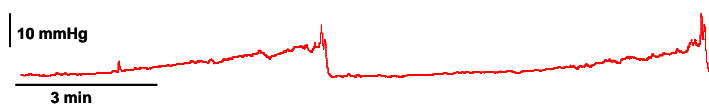


CYSTOMETRY IN SPINAL CORD INJURED RODENTS

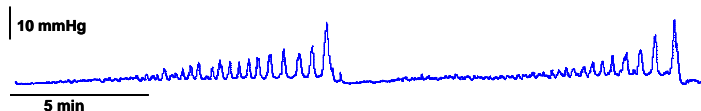
SELECT THE BEST DRUG CANDIDATE FOR THE TREATMENT OF NEUROGENIC BLADDERS

Model	<p>Cystometry in conscious rats following transection of the spinal cord (SCI).</p> <p>In rodents, spinal cord injury initially induces areflexic bladder, followed by emergence of automatic micturition mediated by spinal reflex mechanisms (1).</p> <p>Two types of cystometric profiles are observed (see Figure) in accordance with literature (2).</p>
Species	<p>Rat Mouse</p>
Description	<ul style="list-style-type: none"> ➤ Four-five weeks after SCI, cystomanometry is performed in restrained rats via continuous intravesical infusion of saline. ➤ Effects of selected compounds (i.v., i.p., p.o., s.c.) are evaluated on several cystometric parameters, comprising non-voiding bladder contractions (NVC).
Interest	<ul style="list-style-type: none"> ➤ This model is potentially useful to select innovative compounds having an inhibitory effect on C-fiber afferents. ➤ Compounds that show a positive response in this type of test include: <ul style="list-style-type: none"> • Glutamate receptor antagonists (2), • COX inhibitors and prostacyclin receptor antagonists (3), • P2X₃ receptor antagonists (4).

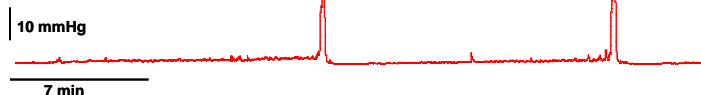
Sham



SCI



SCI



Cystometric parameters evaluated

- Bladder capacity
- Amplitude of Micturition
- Amplitude and Frequency of Non-Voiding contractions
- Micturition volume
- Basal intravesical pressure
- Threshold pressure for micturition

Scientific publications

1. Seki S *et al*, *J Urol* **171**: 478-482, 2004
2. Yoshiyama M *et al*, *Expr Neurol* **159**: 250-57, 1999
3. Khera M *et al*, *BJU Int.* **99**: 442-46, 2007
4. Lu S.H *et al*, *J Chin Med Assoc.* **70**: 439-44, 2007

Cystometric profiles in conscious female rats: comparison of sham-operated and SCI rats (UROsphere internal data, 2008).

UROsphere is a pre-clinical company specializing in in vitro and in vivo pharmacological studies for Urogenital and Renal disorders

<http://www.urosphere.com>

