

OPEN PEER REVIEW REPORT 1

Name of journal: Neural Regeneration Research

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Title: Fluoxetine, a clinically used SSIR, improves bladder functional recovery post moderate spinal cord injury

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COMMENTS TO AUTHORS

By establishing spinal contusion injuries with different severity, in adult female mice, the authors applied pharmacological screenings of clinically used serotonergic drugs to identify potential targets to improve the bladder function post moderate spinal cord injury (SCI).

This subject is very important because bladder and sphincter dysfunction after SCI is a major problem for para/tetraplegic patients. Moreover, this subject is often neglected in SCI research.

This paper is very interesting. There are just few items that could be addressed:

- In abstract, please specify that this work is performed in mice or at least in animal model.
- In M&M, please specify the number of animal used for each experiment, and each drug used.
- In the text of the Results, many sentences are not results:

"We applied two different forces (70 KD and 90 KD) at T10 to generate spinal contusion injury. To assess the severity of contusion injuries with different forces, we first applied the BMS, a widely used scale system to evaluate locomotion recovery (Basso et al., 2006)". This is methods.

"Supraspinal control is required for coordinating the bladder and urethra (Fowler et al., 2008; Cruz and Cruz, 2011). Previous studies suggested that manipulating the descending serotonergic tract by activating serotonergic receptors could improve micturition function post spinal cord injury (Dolber et al., 2007; Norouzi-Javidan et al., 2016). To further test this idea, we treated mice with moderate spinal contusion injury with different serotonergic agonists (quipazine: a 5-HT_{2A} agonist and 8-OH-DPAT: a 5-HT_{1A} agonist)." This is discussion.

Etc.

The authors showed many results in different figures. Please, give more detailed results and less discussion in this section.

- Figure 3, please, specify the number of animals tested for each drug.
- Figure 4 A and B, please, specify the number of animals tested for each drug.
- Figure 5C, please, check the level of the spinal contusion injury (T8 or T10?).