PEER-REVIEW REPORT 2

Name of journal: Neural Regeneration Research
Manuscript NO: NRR-D-18-00236
Title: Semi-automated Segmentation of MRI Thigh Skeletal Muscle and Fat using Threshold Technique after Spinal Cord Injury
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Date sent for review: 2018-06-15
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Review time: 5 Days

1. Do you consider this paper is hotspots or important areas in the research field related to neural regeneration?
Yes

2. Which area do you think this paper falls into? Neurorepair, neuroprotection, neuroregeneration or neuroplasticity.
neuroregeneration

3. Is the manuscript technically sound, and do the data support the conclusions?
Yes

4. Has the statistical analysis been performed appropriately and rigorously?
Yes

5. Is the manuscript presented in an intelligible fashion and written in Standard English?
Yes

6. Your peer review comments will be published as an open peer review report. Do you agree to have your name included with the published article?
Yes

Manuscript Rating Question(s):	Scale	Rating
The subject addressed in this article is worthy of investigation.	[1-3]	3
The information presented was new.	[1-5]	5
The conclusions were supported by the data.	[1-10]	10

COMMENTS TO AUTHORS

The manuscript describes the use of a semi-automated technique to segment seven thigh compartments in persons with spinal cord injury (SCI) that the authors developed. The authors concluded that this new threshold technique provided a robust accuracy in measuring the seven main thigh compartments, while greatly reducing the analysis time. This is important because may allow for faster diagnostics and the development of a more individualized rehabilitation strategy designed around improving body composition and preventing the occurrence of metabolic abnormalities after SCI. However the authors admit that the sample size was relatively small (n=18).

This original manuscript and is well written, however I have some comments

1) At the abstract "We have developed an semi-automated technique to segment seven thigh

compartments in persons with spinal cord injury" should be "We have developed a semi-automated technique to segment seven thigh compartments in persons with spinal cord injury"

2) At the introduction, the authors only discuss that the "Reduction in muscle size is also associated with metabolic abnormalities similar to chronic obesity, insulin resistance, dyslipidemia, type II diabetes mellitus and cardiovascular disease." However I think it is also important to point that reduction in muscle size could be (or is) due to inability to move and exercise. This should also be explored in the introduction part.