

Review of: "CNN-MRI Detection of Fatty Infiltration, Rotator Cuff and Infraspinatus Muscle Atrophy in Shoulder Pain Patients"

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Potential competing interests: No potential competing interests to declare.

This manuscript presented an attempt to create an innovative Deep CNN for the diagnosis of shoulder fractures. The overall structure of the manuscript looks fine, and the techniques are reasonably applied. However, there are some potential perspectives for overall quality improvement, which can be briefly summarised as :

- 1)The authors are suggested to review the references to standardize the citation format. For example, authors should adjust "{m/14,15/}" to [14,15] for consistency;
- 2)The quality of the figures should be enhanced. For example, the resolution of Fig. 1 is too low to see the texts in the figure.
- 3)There are exactly two paragraphs starting with "Constructing a Deep Convolutional Neural Network model ...". The authors are suggested to examine the manuscript carefully to exempt similar issues like this.
- 4)The authors are suggested to provide more details about the composition of the dataset and training strategies for easier follow-up. Also, the authors are suggested to provide detailed results on the test set for quick catch-up on the model performance.
- 5)In the Discussion section, it seems quite confusing when the authors claim that "There was a noticeable pattern in this research where females had a greater rate of change in the fat fraction compared to men in the group with full-thickness tears," as there were no statistical data provided. The conclusions could be more supportive if more statistical details were given.

Overall, this manuscript may have to experience a significant revision before being considered for academic publication.