Reviewer’s report

**Title:** Cross-sectional area of the paraspinal muscles and its association with muscle strength among fighter pilots: A 5-year follow-up

**Version:** 2  **Date:** 10 Oct 2018

**Reviewer:** Reviewer 2

**Reviewer's report:**

"REVISION ASSESSMENT FROM THE ACADEMIC PEER REVIEWER:

Has the author addressed your concerns sufficiently for you to now recommend the work as a technically sound contribution?

No

Reviewer comments: Most comments are revised well. However, about "…why increased CSA, due to flight exposure, could not be the issue in any such young sample" (comment 4) is not really addressed, the authors refer it to exercising (and not to flight), but their sample is young and such increase could happen in absence of exercising and flight in any young sample since they are young and growing...

About the importance of muscle strength (comment 5), they suggest further longer follow-ups (but we know from other studies that muscle strength is sometimes not important in the complexity of musculoskeletal pain..). They choose, of course, to discuss as they like, but sometimes it becomes a bit fetched about the hypothesis that strength MUST be important in dealing with pain or risk for pain.

About SD vs CI, it is not just a choice between them as they were equally comparable; they should be used as intended. There is extensive scientific literature describing SD as an index of the variability of the original data points, and should be used to, for example, describe your data sample as recruited. Confidence intervals (CIs) indicate a range of values within which the "true" value lies in, for example, your own computed data (your results) - it shows the reader
how accurate the estimates of the population values actually are, and hence assist the reader in determining the meaning of the findings. It is, of course, up to the editor to decide on this.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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