Reviewer’s report

Title: Outcome Measures of a 6 Minute Walk Test: Relationships with Physiologic and Computed Tomography Findings in Patients with Sarcoidosis

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Reviewer: Anne Holland

Reviewer’s report:

Thank you for the opportunity to review this interesting manuscript which describes the utility of the distance-saturation product calculated from 6-minute walk test in a retrospective cohort of patients with sarcoidosis.

My main query is in regard to the authors’ two previous publications in this area - Ann Thorac Med. 2009 Apr;4(2):60-4 and Ann Saudi Med. 2009 Nov-Dec;29(6):454-9. It is unclear whether these are related publications that contain some of the same participants. In order for the degree of overlap to be assessed, and the amount of new data contained in the publication to be understood, more information regarding the relationship between these studies is required.

Additional comments

The manuscript is well written and the results are clearly presented, although the manuscript would benefit from increased use of paragraphs – currently several of the paragraphs are a page and a half in length.

The abstract would benefit from demographic information regarding disease severity (eg lung function data)

The introduction does not make it clear how this study might add to previous literature evaluating the 6-minute walk distance in sarcoidosis.

Were the blood gases taken on the same day as the 6-minute walk tests?

Was the 6-minute walk test performed once or twice? There is a documented learning effect for this test and two tests are required to account for this. Given the low distances that are reported (which seem overly low for such a relatively young and well population) I am concerned that the 6-minute walk distance may be underestimated.

Statistical analysis – terminology requires attention. All data are quantitative. The term ‘qualitative’ does not appear to be appropriate here – I think that you are referring to categorical data. The term ‘quantitative’ is not used correctly here – I think that you are referring to continuous data.

The regression analyses should be presented in tables with betas and standard errors. The utility of the predictive models cannot be adequately assessed
Discussion – can the authors suggest why FEV1, a measure of obstruction, might be the sole predictive factor?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests