Reviewer’s report

Title: Efficacy of 99mTc-DTPA SPECT/CT in Diagnosing Orbitopathy in Graves' Disease

Version: 0 Date: 28 Nov 2018

Reviewer: Carla Moran

Reviewer’s report:

This is a well written paper with a clear aim, description of results and reasonable conclusions. I have a few comments:

Major Comments:

Some sentences in the abstract need rephrasing to improve understanding, for example: "The occurrence of an active form of GO had no impact on the exacerbation of exophthalmos or the thickness of the oculomotor muscles." and "…..be used as a referential diagnostic procedure in GO."

Please could the authors expand on their explanation as to how some patients have a positive CAS score but negative imaging on both modalities (MRI and SPECT/CT, n6/23).

The authors separated patients into either "active GO" (2 or more methods positive) or "inactive GO" (2 or more methods negative), but this means all patients were categorised as having GO (either inactive or active). All recruited patients had "suspected active Graves' exophthalmos" - how was this suspicion actually determined or quantified prior to recruitment? In other words, did all recruits really have eye disease, either active or not?

Minor Comments:

References to be added in introduction after the following statement: "The volume of 99mTc-DTPA's accumulation at the site of inflammation, in this case in the soft tissue of the orbital cavity (mainly in the oculomotor muscles) is directly proportionate to the activity of the infiltrative and edematous process."

Change "TSH-TRAb" to TSH Receptor Antibody (TRAb)

Table 2, 3, 4 change "sum" to "total"

Change "CAS scale" to "CAS score"

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

Yes

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

Yes

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

Yes

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.

I recommend additional statistical review

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

Needs some language corrections before being published

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