Reviewer’s report

Title: Dual energy CT findings in gout with rapid kilovoltage-switching source with gemstone scintillator detector

Version: 0 Date: 06 Aug 2019

Reviewer: Janitzia Vazquez-Mellado

Reviewer's report:

*The authors consider that DECT is an alternative method to synovial fluid microscopy. In my opinion, is just a complementary method. DECT is not available in many institutions from undeveloped countries.

*The authors report that there are at least 5 types of DECT scanners available, maybe the studies that consider the evaluation with different DECT types and moreover comparison with ultrasonography in the same patients, could be more useful.

*The data of different DECT types and ultrasonography including all the scope of gout (early onset, long duration, severe) feasibility, costs, required time and quality of the images, related clinical data and limitations are desirable.

Methods.

*The data acquisition was retrospective, including only 55 patients attended between 2015 and 2018. Did them were all the available patients in whom DECT GSI was realized or were selected for any reason? Consecutive? how many gout patients were attended on that period?

*DECT images evaluation and scoring were done by an experienced radiologist and a junior radiologist, them read the images together twice. We have no data about inter-observer (maybe not possible in this case) and intra-observer evaluations? We have not data about DECT GSI in other diseases or control patients. Artifact are the unique concern?. The limitations of the study should be considered.

Minor points.

*Reference 3: authors are missing

* Maybe is better to use gender instead of "sex"
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.

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.

Not relevant to this manuscript

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

Acceptable

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