

April 2, 2014

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 8486-review.doc).

Title: Imaging of Gaucher Disease

Author: William L Simpson, Jr., George Hermann and Manisha Balwani

Name of Journal: *World Journal of Radiology*

ESPS Manuscript NO: 8486

1. The format of manuscript has been updated according to the suggestions of administrator:

- A short running title has been added
- Address of each author now follows the name
- Telephone number and fax number with country code has been added to the corresponding author information
- Author contributions have been added
- The abstract has been expanded to more than 200 words
- Key words and the core tip have now been included in the manuscript

2. Revision has been made according to the suggestions of the reviewer

(1) As the reviewer requested we have discussed in more detail the use of technetium ^{99m} sestamibi scintigraphy in the evaluation of bone marrow involvement. We also expanded the discussion of the BMB score and how it is calculated. However, we could not expound upon the use of FLT PET. AS we mentioned in the manuscript, this tracer is relatively new. It has been tested in patients with hematologic neoplasms including myelodysplasia, multiple myeloma and myeloproliferative disorder. It shows decreased bone marrow uptake in these patients compared to normal controls subjects. Therefore one can speculate that it would show similar results in other marrow replacement disorders. But to our knowledge no study has been yet published describing its use specifically in Gaucher disease.

(2) The reviewer states: "at page 8 a mistake is present: ^{99m}Technetium (^{99m}Tc) sulfur colloid is correct." On page 8 both ^{99m}Technetium sulfur colloid and ^{99m}Technetium methylene diphosphonate are mentioned. We are not sure to which paragraph the reviewer is referring. In either case we respectfully disagree. ^{99m}Technetium sulfur colloid is used to evaluate bone marrow infiltration. ^{99m}Technetium methylene diphosphonate is used to differentiate bone crisis from infection. ^{99m}Technetium sulfur colloid is not used in the evaluation of bone pain and ^{99m}Technetium methylene diphosphonate is not used in the evaluation of marrow infiltration. We feel the manuscript should not be changed and that the provided references justify our statements

(3) The reviewer also states that we should not mention the use of scintigraphy with ¹¹¹Indium labeled leucocytes because it does not only apply to Gaucher patients. We agree that it is not used exclusively in Gaucher patients. However, as the reviewer states it is used in evaluation of prostheses, which many Gaucher patients have due to joint

replacement after osteonecrosis, and for evaluation of osteomyelitis. One hallmark of gaucher disease is aseptic osteomyelitis which can be differentiated from septic osteomyelitis by use of "infection imaging" using scintigraphy with 111Indium labeled leucocytes. Therefore, we respectfully disagree with the reviewer's opinion that this should be removed.

(4) Many of the references are old as pointed out by the reviewer. Many of these are the original articles describing a finding or use of an imaging technique. Since MRI, CT and scintigraphy have been in use since the 1990 for MRI and more remotely for radiographs this is unavoidable. Moreover, Gaucher disease is a rare disorder that has been described since the late 1800s. There has not been much published in the literature in recent years about imaging. There have been a few papers regarding finding after treatment with the new substrate reduction drugs and those are referenced. Otherwise there have been recent review articles but not much new research. Therefore, we do not see how this critique can be adequately addressed.

Thank you again for publishing our manuscript in the *World Journal of Radiology*.

Sincerely yours,

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