



February 28, 2012

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: ESPS Manuscript 8454-Review).

Title: Imaging of skeletal muscle in vitamin D deficiency

Author: Bianca Bignotti, Angela Cadoni, Carlo Martinoli and Alberto Tagliafico

Name of Journal: World Journal of Radiology

ESPS Manuscript NO: 8454

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated.

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

Reviewer 1

This review focused on US/CT/MR imaging diagnosis in vitamin D deficiency imaging among elderly people.

1. The title is too simple to clearly summarize the content. It should be made more specific, more clear.

We corrected the title, clarifying and specifying the main topic of our manuscript.

2. Author declare that he will focus on “Elderly people” who are prone to accidental falls and many fractures, but actually most of the data are relative to a wider population especially for athletes or younger than 65.

Thank you for the comments. We expanded our review focusing on elderly and on the association between vitamin D deficiency and muscle weakness and falls.

3. As a review, the author should provide more information of the same scope instead of focusing on only a few literatures. Specifically, one of reference was cited for 6 times , but the total reference papers were only 15 .

Thank you for the comments. We extended the references about this issue.

4. The section “Skeletal Muscle” is covering a much bigger scope, and it occupied a large proportion of the paper, this section can be shorten and add a detailed muscle pathophysiological processes of vitamin D deficiency.

We would like to thank the reviewer for the thorough comment. We added another subsection entitled “vitamin D and skeletal muscle” and made shorter the section “skeletal muscle imaging”.

5. The section “ultrasound” is more like a general introduction about using US in muscle disease, but lack its advances in vitamin D deficiency imaging among elderly people.

Thank you for the comments. We added recent US issue, however there are no recent significantly radiological studies about this topic, therefore we expanded especially the subsection about MRI.

6. More details about pathophysiological processes of vitamin D deficiency and its relationship with muscle diseases should be included.

Thank you for the suggestion. We added another subsection entitled “vitamin D and skeletal muscle” and include vitamin D relationship with myopathy, myalgia and fibromyalgia.

7. After sections US/DEXA/MRI , the author should provide his own summery and bring redears the unique views for future directions.

Thank you for the suggestion. We provide our consideration at the end of the review.

8. A lot of studies had recently been reported to focus on US/CT/MR developments in vitamin D deficiency imaging , but only a few of these studies are included in the references.

Thank you for the comments. We extended the references about this topic.

Reviewer 2

In this study, the authors focused on the role of imaging in vitamin D deficiency patients. The manuscript seems representative in its area, however there are some revisions to be made. Here is the point-by-point review list.

1. The role of diagnostic imaging in investigating the specific effects of vitamin D on muscle function should be emphasized starting from the title, that could be rephrased simply as “The role of imaging in vitamin D deficiency patients”.

Thank you for the suggestion. We corrected the title in “Imaging of skeletal muscle in vitamin D deficiency”.

2. The authors state that “By our group it has been shown that fatty degeneration of thigh muscles detected on MRI was associated with vitamin D deficiency and impaired balance and gait”

A mention of the potential contribution to atrophy and muscular degeneration of other deficiencies of hormones that may impact the growth/trophism of skeletal muscle in the elderly would be appropriate. If it would be indeed the case, a brief overview of the role of diagnostic imaging in other hormonal deficiencies should be attempted.

We would like to thank the reviewer for the thorough comment. In the “conclusion” section, we added a mention to the high metabolic nature of skeletal muscle. We included an overview to the hormones and factors that influence muscle differentiation and metabolism.

3. Some figures would help the readers in a full understanding of the role of imaging in vitamin D deficiency.

We added some clarifying figure (MRI and CT of thigh muscles in patient with vitamin D deficiency).

4. The manuscript should be re-edited due to minor inaccuracies, i.e: clncal instead of clinical (pag. 5 line 3), reserch instead of research (pag. 5 line 4), muscels instead of muscles (pag. 5 line 15), "remember" instead of remember (pag. 5 line 18).

Corrected.

3 References and typesetting were corrected.

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

Sincerely yours,

A handwritten signature in black ink that reads "Alberto Tagliafico". The signature is written in a cursive style with a horizontal line at the end.

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