Reviewer’s report

Title: Vitamin D versus placebo as adjunctive treatment of heart failure patient quality of life and hormonal indices: A randomized, double-blind, placebo-controlled trial

Version: 2 Date: 30 Aug 2017

Reviewer: Renato De Vecchis

Reviewer's report:

- Discussion, Vitamin D status, page 22, row 10 A question remains as to whether heart failure patients require vitamin D3 treatment only in the cases of 25(OH)D <20-30 ng/ml or if all patients with heart failure would benefit from supplementation despite normal circulating 25(OH)D levels…

- Discussion, Vitamin D status, page 22, row 17 In the case of vitamin D, one flaw of previous research may be the lack of identification of highest risk patients by not measuring 25(OH)D levels less than 20–30ng/ml. With the potential benefit that we found for QOL and neurohormonal indices, monitoring 25(OH)D and subsequent repletion has some scientific merit. Further research is needed to elucidate whether vitamin D should be given with or without monitoring serum levels.

Commentary. These assertions fuel the suspicion that Authors may regard use of vitamin D as a beneficial resource in chronic heart failure(CHF) patients, in terms of improved quality of life and neurohormonal indexes, even if such a liberal use is indiscriminately applied, namely even in the absence of a proven vitamin D deficiency. Unfortunately, a liberal use of vitamin D, taken isolatedly, has not been shown to be adequately beneficial and resolutive, not even in osteoporosis therapy, that is, in a field of application more directly related to the pharmacodynamic features of vitamin D, i.e., the ability to increase intestinal dietary calcium absorption and thereby at least partially antagonize heightened osteoclastic activity in bone tissue, that is present in postmenopausal osteoporosis.

Conversely, in my opinion, vitamin D administration is not useful except for selected cases of CHF, as well as in cases of chronic kidney disease associated to it, namely in cardio-renal and reno-cardiac syndromes. On the contrary, authors seem to agree with the hypothesis of a possible utility of vitamin D in all cases of CHF, without not even affirming the diriment and mandatory role reasonably played by a preliminary determination of serum vitamin D. This statement seems to confer to vitamin D a feature of crucial drug in CHF management, which is certainly misleading and/or exaggerated with respect to the subsidiary and marginal role, that vitamin D therapy really plays in pharmacologic management of chronic heart failure.
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.

Yes

Are the conclusions drawn adequately supported by the data shown?
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No

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