Reviewer's report

Title: Vitamin D and disease activity in Moroccan children with juvenile idiopathic arthritis

Version: 1 Date: 5 July 2013

Reviewer: Maria Teresa MTT Terreri

Reviewer's report:

1. Is the question posed by the authors well defined?

The question is well defined. The authors aimed to evaluate the vitamin D concentrations and its relationship with disease activity in an auto-immune disease - JIA.

2. Are the methods appropriate and well described?

The methods are well described, but the biggest flaw of this manuscript is the absence of a control group. The authors must include a group of healthy population from the same socio-economical level, age and sex matched in order to compare with JIA patients. The term vitamin D concentrations is more adequate than vitamin D levels.

3. Are the data sound?

Although the sample is not big, we can accept the sample size. The subtypes of JIA should be considered since the inflammatory status and outcome in different subtypes are very different. It is not clear if the oligoarticular subtype presented different concentrations of vitamin D compared with the polyarticular subtype. Some data are contradictory; percentage of rheumatoid factor positiv polyarthritis (42.5% in the text and 45.5% in the table). Average age of participants must include the range of the age. Figure 1 is not needed. The table 3 must be cited in the results.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

Yes.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
6. Are limitations of the work clearly stated?

Two evaluations were not performed and would complete the study: bone densitometry and PTH levels. The decrease of vitamin D is relevant if it causes an increase of PTH levels with consequent Ca/P alterations. This must be addressed as a study limitation in the discussion.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? Yes.

8. Do the title and abstract accurately convey what has been found?

The title must be changed to: "Vitamin D concentrations and disease activity in Moroccan children with juvenile idiopathic arthritis". Tha abstract is Ok.

9. Is the writing acceptable? Yes.

Minor Essential Revisions

In the discussion - verify final page in ref 20 and 28 and confirm year of publication of ref 14 (2004).

Major Compulsory Revisions

I think that a control group is needed and the manuscript can not be accepted without it.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests