Reviewer's report

**Title:** Strong association between non alcoholic fatty liver disease (NAFLD) and low 25(OH) vitamin D levels in an adult population with normal serum liver enzymes.

**Version:** 3 **Date:** 10 March 2011

**Reviewer:** Kathleen M Botham

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The aim of this study was to test the hypothesis that non alcoholic fatty liver disease (NAFLD) is associated with hypovitaminosis D in subjects with insulin resistance and related metabolic disorders, but without previously diagnosed liver disease. 162 out of 262 patients referred to the Diabetes and Metabolic Diseases clinic in Rome were found to have NAFLD, and these subjects were found to have significantly lower levels of serum 25 hydroxyvitamin D compared to subjects without NAFLD independently of age, sex, serum triglycerides, HDL and glycaemia. The study appears to have been well carried out with appropriate study design and analyses. This topic is of interest, but is not entirely new, as an association between low serum vitamin D and NAFLD has been reported previously in patients with existing liver disease.

**Minor essential revisions**

1. The English grammar and paragraph structure needs attention throughout the manuscript.

2. The authors refer to vitamin D and calcitriol, are these terms interchangeable? It should be made clear if they intend a difference between them, if there is no difference, they should stick to one or the other.

3. Results. Data given in the tables should not be repeated in the text.

**Quality of written English:** Needs some language corrections before being published

**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