Reviewer's report

Title: Measurement of the total antioxidant response using a novel automated method in subjects with nonalcoholic steatohepatitis

Version: 5 Date: 18 April 2005

Reviewer: Giulio Marchesini

Reviewer's report:

General
Horioz et al report data on the total antioxidant capacity and oxidative stress in NAFLD patients using a novel automated method. The results confirm the antioxidant capacity is reduced, whereas metabolites indicative of stress are higher than normal.
I have no competence to comment on the analytical method they propose, and will limit my report to clinical and methodological aspects of the study.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Previous data on hepatic oxidative stress have already been published (Videla LA, Rodrigo R, Oreillana M et al. Oxidative stress-related parameters in the liver of non-alcoholic fatty liver disease patients. Clin Sci (Lond) 2004; 106:261-8.) and also data on circulating oxidative stress are known (Chalasani N, Deeg MA, Crabb DW. Systemic levels of lipid peroxidation and its metabolic and dietary correlates in patients with nonalcoholic steatohepatitis. Am J Gastroenterol 2004; 99:1497-502.) and should be discussed and quoted.
The Pearson test cannot be used to demonstrate a correlation between a parametric variable (TAR, OSI, or TBARS) and a nominal variable (histology). This correlation should be tested by Spearman correlation analysis. Better, the association should be tested by means of logistic regression, having histology as dependent variable and oxidative stress as independent, corrected for covariates. The association should also be tested the other way round, having oxidative stress above a definite cut-off as dependent variable.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

The clinical, demographic and histological data of NAFLD cases are not part of the results. They should be better placed in the Method section, after the exclusion criteria.
The discussion should be reduced by 50% without any loss of information.

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Discretionary Revisions (which the author can choose to ignore)
Figures do not add much (see above). They should be omitted or presented in a more compact way.

What next?: Reject because too small an advance to publish

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published
Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests