Reviewer's report

Title: White cell count and platelet count associate with histological alcoholic hepatitis in jaundiced harmful drinkers

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Reviewer: Philippe Mathurin

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This study evaluates the frequency of biopsy-proven alcoholic hepatitis in patients admitted with a suspected diagnosis of severe alcoholic hepatitis based on biological and clinical features. The objective of this study is relevant as some investigators are still reluctant to consider liver biopsy as a prerequisite criterion for the treatment of patients with aggressive forms of ALD requiring specific interventions or for the setting of studies evaluating new therapies. As only 75% of patients with presumed diagnosis of alcoholic hepatitis disclose biopsy-proven alcoholic hepatitis, this study supports the conclusions of the recent EASL guidelines on Alcoholic liver disease for the use of liver biopsy in the setting of alcoholic hepatitis. I suggest some modifications in order to improve the quality of this work.

Major comments

1. The authors need to include in the references and to discuss the recent published EASL Clinical Practical Guidelines on Alcoholic Liver Disease [J Hepatol 2012;57:399-420]

2. The authors need to provide all details on histological analysis on overall patients: a/ What are the histological features for patients without biopsy-proven alcoholic hepatitis? b/ What are the histological features of patients with biopsy-proven alcoholic hepatitis? Do the pathologist use a histological grading of severity of alcoholic hepatitis in terms of hepatocyte ballooning and of inflammatory infiltrate?

3. Although the presence of Mallory-Denk's bodie is not considered as necessary, it would be interesting to specify the percentage of patients disclosing this histological feature.

4. The authors state on page 7: “There was no difference in the mean age, Child’s score, DF, prothrombin time or serum concentrations of creatinine, bilirubin, albumin, alkaline phosphatase and alanine transaminase between the group with histological alcoholic hepatitis and those without.” This sentence is inaccurate when considering the limited sample size. As an example, the lack of significance for bilirubin (431 vs 307 μmol/l) is probably attributed to a type II error consisting in the failure to reject a false null hypothesis.

5. In table 1, p values need to be provided for all comparisons including the non significant.

6. The authors need to clearly discuss their results in terms of the use of liver
biopsy in the setting of trials. How can we accept the possibility of 25% of false inclusions if we are testing therapy with an expect impact of 20-30% in terms of short-term survival? I suggest emphasizing this point in the conclusion of the abstract, as well. This is a crucial point for the development of future therapies aiming to improve the outcome of patients suffering from this life-threatening disease.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I do not have conflit of interests related to this manuscript.