Reviewer’s report

Title: Primary Biliary Cirrhosis in a genetically homogeneous population: Disease associations and familial occurrence rates.

Version: 2 Date: 31 March 2012

Reviewer: Eirini Rigopoulou

Reviewer’s report:

The study by Mantaka and colleagues tried to elucidate eventual lifestyle and disease associations as well as familial occurrence rates in a well geographically defined and homogeneous PBC population from Crete.

This is an interesting study based on the fact, that this is the first study conducted so far in a well characterized population of PBC patients from Greece. This group had the advantage of being homogenous based on the fact that all patients were of Cretan origin and had Cretan residency. Also important was that both FDR as well as controls had the same characteristics, concerning origin and residency.

There are some issues that need to be clarified further:

1) PATIENTS AND METHODS SECTION: The authors should mention in more detail methods used for determination of AMA (IIFL in which substrate, which cut-off for AMA positivity), determination of method to detect anti-M2. They also add details on the method used for the determination ANA.

2) RESULTS SECTION: To describe in more detail characteristics of PBC population.

How many patients were AMA positive, to explain what it means AMA/M2 positive (IIFL and M2 positive??). In addition the authors should mention how many patients had PBC- specific ANA and of which type. Detailed histological data have to be also provided. To refer to progression of disease during follow up (how many died, how many were transplanted? How many had progression from stage 1-2 to stage 3-4??)

3) RESULTS SECTION: Table 1: The way smoking history is presented in Table 1 is rather confusing. It is not clear what the percentage in “currently smoking” represents? This should be clarified.

4) RESULTS SECTION: Table 1: Percentage of patients using nail polish or hair dye is not significantly different between PBC patients and controls. The present their data as percentage, while times of exposure per year should be more accurate especially for hair dye. If the difference between PBC and controls is not significant, this parameter should not be included in the multivariate analysis (see page 13).

5) RESULTS SECTION: in accordance to the previous point, the authors should clarify whether parameters included in the multivariate analysis for female
patients were significantly different between PBC patients and controls. This is not clear from the results presented.

6) Key references (original and review articles) are missing and must be included, such as:


**Level of interest:** An article whose findings are important to those with closely related research interests

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

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

**Declaration of competing interests:**

I declare that I have no competing interests