Reviewer’s report

Title: What are the implications of the spontaneous spleno-renal shunts in liver cirrhosis?

Version: 2 Date: 1 October 2009

Reviewer: Simon Taylor-Robinson

Reviewer’s report:

1. Is the question posed by the authors well defined? – YES
2. Are the methods appropriate and well described? – YES
3. Are the data sound? – YES, but the sample size is too small to make definitive conclusions
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?

NO – the study only comments on 81 patients (15 SMS positive and 66 SMS negative patients). The main conclusions are that SMS is associated with obesity and that 3 SMS positive patients developed HCC, whereas 4 SMS negative patients developed HCC. From these data, the authors state that SMS positive patients are burdened by a high incidence of HCC. This is not supported by the data as the study is underpowered to make these conclusions.

6. Are limitations of the work clearly stated? No
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? No
8. Do the title and abstract accurately convey what has been found? NO – the abstract states that SMS positive patients are burdened by a high incidence of HCC. This is not supported by the data as the study is underpowered to make these conclusions.

9. Is the writing acceptable?

The manuscript needs professional language editing, particularly in the discussion where the word order and sentence construction is awkward and seems to be a direct translation from Italian.

10. Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

I would suggest that figure 1 is removed, as it adds nothing to the manuscript and
is unilluminating for the average reader. Table 1 is also unnecessary as this is common knowledge.

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

Language editing is required from a professional language service (particularly with respect to the discussion)

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

This is a well conducted study and the thought process and study design are very good. The problem lies in the sample size which is just too small to make such concrete conclusions. The authors have conducted their analyses very carefully, but it is not possible to justify the conclusions on 15 SMS positive and 66 SMS negative (reference population). The authors note that SMS positivity is associated with BMI (why isn’t this a chance finding?) and that 3 SMS negative patients developed HCC, compared to 4 SMS positive patients. The assertion that SMS positive patients are burdened by a high HCC incidence seems difficult to justify. The authors need to tone down their abstract and conclusions to say that there is an association in this cohort between SMS positivity and a higher HCC incidence rate, but that the sample size is too small to be definitive. I would suggest that the authors consider resubmitting after they have had formal power calculations on sample size with a professional statistical service.

**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, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.