Reviewer's report

Title: A Prospective Experimental study of liver fibrosis with ultrasound and Its Correlation with hepatic reserve function and hemodynamics

Version: 1 Date: 11 April 2012

Reviewer: Nigel Bird

Reviewer's report:

Major revisions
(1) This is an interesting paper but contains some major issues that require resolution before it is acceptable for publication.

(1) the scoring system categorises fibrosis into 0, 1, 2, 3 and 4 but the authors report only mild moderate and severe. There is no explanation for combining categories 1 and 2; it is essential that this be justified.

(2) it is generally recognised that two independent, expert histopathologists score the fibrosis separately and blinded to the origins of the samples and then reach consensus on different scoring. Inter and intra-observer variability is too great to ignore this. See Standish et al. 2006, Gut; 569-578

(3) the raw data for the groups of animals sacrificed at different time intervals needs to be presented since there are clear overlaps in the degree of fibrosis present at each time point.

Minor revisions
(1) References to the original paper reporting the development of the animal model for fibrosis and the Xi’an scoring system need to be provided.

(2) What was the basis for the sample sizes? 11 for control group and 12 for the other groups. Were power calculations or sample size calculations carried out?

(3) Since the fibrosis scores are categorical data the statement on pages 10 'A better inverse correlation was found between HCl and ICG R15 (r = -0.890, p <0.01) (Fig 3).’ is incorrect, you cannot compare categorical data against continuous data.

(4) I am not convinced that the liver function tests add anything to this paper. They show what one would expect to find in animals that had been fed on a hepatotoxic diet.

(5) The English is difficult to follow at times, some careful editing is need to be done to address this.

Level of interest: An article of limited interest
Quality of written English: Not suitable for publication unless extensively edited

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare no competing interests