Reviewer's report

Title: Hepatic inflammation mediated by hepatitis C virus core protein is ameliorated by blocking complement activation

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Reviewer: Tarik Asselah

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In the article "Hepatic inflammation mediated by hepatitis C virus core protein is ameliorated by blocking complement activation", a mouse with conditional expression of HCV core was developed and the effect of core protein production in the adult liver examined. They concluded that transgenic mice that conditionally express intermediate HCV core protein develop inflammation, steatosis, and fibrosis. These effects mediated by HCV core are reduced by administrating CD55, a regulator of the complement pathway.

Minor Essential Revisions

(1) How the authors explain that mice with the more advanced changes all had intermediate levels of HCV core protein in the liver; while mice with high levels of the protein had minimal findings? Since mice with high expression of HCV core display markers of oxidant stress, we should suspected advanced disease (steatohepatitis).

(2) Regarding the fact that core protein is marked by the complement proteins, initiating the complement pathways. Is it a non specific mechanism with just HCV core initially elicits hepatic inflammation and subsequently activates the coagulation pathway; or a more specific mechanism that links HCV and complement pathway?

(3) The conclusion (of the abstract) is too speculative and global "The model may be valuable in investigating the pathogenesis of liver injury in chronic hepatitis C and in designing therapeutic interventions".

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

Quality of written English: Acceptable

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' below