Reviewer's report

Title: Prevalence of metabolic abnormalities in HBV related hepatocellular carcinoma in Chinese

Version: 2 Date: 2 December 2010

Reviewer: Chun-Jen Liu

Reviewer's report:

General comments: Metabolic syndrome (MS) has becoming a big disease burden worldwide, and possibly plays a role in the clinical presentation and progress of chronic hepatitis C virus infection. The prevalence and impact of MS in patients with chronic hepatitis B (CHB) were just begun to be clarified in recent studies. Zhao et al. addressed this issue by cross-sectional investigation of the prevalence and significance of metabolic abnormalities in 179 patients with HBV-related HCC, as compared with 100 HBV carriers and 195 healthy controls. They found that high BMI and insulin resistance were associated with the development of HCC. To be noted, the association of MDA (a maker of oxidative stress), GA (a maker of glucose metabolism) and free fatty acid with the development of HCC was also investigated in this study. This part of study finding was novel. However, several points need to be further addressed.

Major points:
1. The main study design and results were not novel. Similar findings had been published.
2. The enrolled population was quite heterogeneous and the enrollment criteria were not clear. Besides, the clinical, virologic and histologic features of the HCC patients were not presented clearly. The process of hepatocarcinogenesis is very complex. Both host and viral factors may be involved; it is important to evaluate known viral and host factors apart from the metabolic factors. For example, the baseline HBeAg status, the presence of fibrosis stage, the presence of liver cirrhosis, and serum HBV DNA should be provided.
3. The cases and controls were not matched.
4. The sample size was relatively not large.
5. The conclusions can be softer, because the evidence in this study was not solid.
6. The discussion part was tedious and too many review content.
7. Ethical issues were not addressed.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published
Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'