Reviewer’s report

**Title:** Effect modification of serum bilirubin and coffee consumption on the association of gamma-glutamyltransferase with glycated hemoglobin in a cross-sectional study of Japanese men and women

**Version:** 1  **Date:** 17 August 2012

**Reviewer:** Wen-Yuan Lin

**Reviewer’s report:**

Reviewer’s comments:

Zhenjie et al. assessed the effect modification of serum bilirubin and coffee consumption on the association of gamma-glutamyltransferase with glycated hemoglobin in a cross-sectional study of Japanese men and women. They found that HbA1C concentrations increased with increasing levels of GGT. They also found that no effect modification of either bilirubin or coffee consumption on the association between GGT and HbA1C. In general, the authors tried to find the potential effects of GGT, bilirubin, and coffee consumption on glucose metabolism. I have some comments while authors revise the manuscript.

**Major Compulsory Revisions:**

1. Since the authors found no effect modification of either bilirubin or coffee consumption on the association between GGT and HbA1C, how authors use the title of “effect modification of serum bilirubin and coffee consumption on the association of gamma-glutamyltransferase with glycated hemoglobin”? From authors’ group’s previous studies, they have reported that the associations between bilirubin/GGT and HbA1C. Can authors tell us what the manuscript add the current evidences on glucose metabolism?

2. The authors found that the sex difference existed between coffee consumption/bilirubin and HbA1C. Please describe why so in discussion section.

3. The exclusion criteria for participants included total bilirubin>3 mg/dl, AST/ALT/GGT greater than 3-fold of upper limit of the normal range and serum creatine> 2mg/dl. Please explain why the authors choose these criteria.

**Minor Essential Revisions:**

1. The figure is redundant. Please delete it.

2. Authors excluded those participants with medication for diabetes but didn’t exclude those with fasting glucose greater than 126mg/dl( diabetes’s definition). Can authors analyze the effect modification among hyperglycemic patient and euglycemic patients?

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable
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.