Reviewer's report

Title: Inverse correlation between serum interleukin-6 and iron levels among Japanese adults: a cross-sectional study

Version: 3 Date: 20 January 2014

Reviewer: kishor B raja

Reviewer's report:

The authors have gone a long way to address the comments/points raised initially, and I commend them for that.

a) My major issue however remains the time of bleeding. The authors have indicated the morning but no actual time frame provided. As the samples from the 280 volunteers were collected over a 5y period (2005-10), there is likely to be discrepancies in the timing, unless the authors have a record of the actual times. Furthermore, how soon was the serum separated, and were ‘trace-element free’ vacutainers used (to avoid contamination)? (MAJOR)

b) is the 7.4% value correct (line 13 pg 8)? compare with table 1? OR did 2 women have values between 48 and 50? (MINOR)

c) Line 9 (pg 9) values significant at p=0.073 in men? (MINOR)

d) Did the authors try comparing log IL-6 with log TIBC/TfSat? The reduction in TSAT with increasing IL6 is not surprising as serum Fe if being reduced. (MINOR)

e) The authors have highlighted the hypoferrinaemia in their previous study (pg 14). This is somewhat surprising as ferritin is a positive acute phase protein and is expected to rise in inflammation. (DISCRETIONARY)

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

Declaration of competing interests:

I declare that I have no competing interests