Reviewer’s report

Title: Effect of cinnamon water extract on monocyte-to-macrophage differentiation and scavenger receptor activity

Version: 2  Date: 20 November 2013

Reviewer: Kye Won Park

Reviewer’s report:

Effect of cinnamon water extracts on monocyte-to-macrophage differentiation and scavenger receptor activity.

In this manuscript, the authors aimed to investigate the effects of cinnamon water extracts on differentiation of macrophages and their scavenging activity. Cinnamon water extracts (CWE) decrease the expression and activity of scavenging receptors in macrophages. The action of cinnamon water extracts seemed to be partly mediated through ERK 1/2 activation. While the reviewer believes the studies are novel and nicely performed, some modifications especially in figure organization are suggested to improve presentation as shown below.

Major compulsory revisions:

1. Effects of Cinnamon water extracts (CWE) on mRNA expression of macrophages differentiation markers were shown in figure 2 but explained as figure 3 in the results. This should be corrected.

2. All of the data are repeated in two cell lines, THP-1 and primary macrophages. However, the expression of SRA, CD36, and Cd11b were not shown in THP-1 cells but not primary macrophages. This may be added for better presentation.

3. The authors showed the inhibition of acetylated LDL uptake by fucoidan. I believe the authors presented these data (fig 3A, B, C) to show that the systems work (as the positive control) in the current setting. Thus, it may be moved to the upfront of the figure 1 and add new data for the effects of CWE on acetylated LDL uptake by flow cytometry followed by quantification data (as shown in the figure 1 of the current version).

4. For the better comparison, SRA protein expression by U0126 and PMA treatments (figure 4D) can be moved to and combine with figure 3E.

5. Flow cytometry data on figure 4A, B, C can be removed. Instead, the effects of U0126 on ERK activity (western blot) can be added to figure 4E as a control for ERK involvements.

Minor Essential revisions:

Names in the Author’s contributions should be checked again.
Level of interest: An article whose findings are important to those with closely related research interests

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