Reviewer’s report

Title: The effect of an apple polyphenol extract rich in epicatechin and flavan-3-ol oligomers on brachial artery flow-mediated vasodilatory function in volunteers with elevated blood pressure.

Version: 0 Date: 20 May 2017

Reviewer: Vishal Singh

Reviewer's report:

This study evaluated both short and long term effect of epicatechin, a polyphenol extract, rich in and flavan-3-ol oligomers, on vasodilation in volunteers with borderline hypertension and patients with mild hypertension. Authors did see an acute improvement in flow-mediated vasodilatation (FMD) with epicatechin administration. However, such improvement was not statistically significant upon long-term treatment. Additionally, authors did not observe in significant improvement in circulating biomarkers —sICAM-1, sVCAM-1, PAI-1, CRP, ADMA, 300 vWF and sE-selectin— of cardiovascular health in the subjects received epicatechin. Overall, this study deduces that intake of apple polyphenol extract rich in epicatechin and flavan-3-ol oligomers may not improve vascular health, in long term, in subjects with borderline hypertension or mild hypertension. This is an interesting study describing that supplementing polyphenol extracts may not be beneficial in improving the vascular health.

Minor Essential Revision

- Method section is too elaborative; would benefit from being shortened.

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Quality of written English
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