Reviewer’s report

Title: The Effect of Total Anthocyanin-base Standardized (Cornus mas L.) Fruit Extract on Liver Function, Tumor Necrosis Factor α, Malondialdehyde, and Adiponectin in Patients with Nonalcoholic Fatty Liver: A study protocol for a double-blind randomized clinical trial.

Version: 0 Date: 07 Mar 2019

Reviewer: LiLi Yang

Reviewer's report:

The manuscript by Zohreh Sadat Sangsefidi et al is a study protocol for a double-blind randomized clinical trial exploring the protective function of total anthocyanin-base standardized (Cornus mas L.) fruit extract in patients with non-alcohol fatty liver. I have several concerns about this manuscript.

1. This manuscript is lack of innovation. This trial is highly similar to the article by zhang et al. (Medicine (Baltimore). 2015 May;94(20):e758. doi: 10.1097/MD.0000000000000758.), except for the source of anthocyanins and several biomarkers.

2. Transient elastography and ultrasonic techniques are used to diagnose fatty liver and liver fibrosis respectively, which are not gold standard for diagnosing fatty liver and liver fibrosis. Moreover, there is only one doctor to make the diagnosis and grade the severity of fatty liver.

3. When grouping, only age and gender matching were considered, while the severity of fatty liver and BMI were not taken into account.

4. The article did not specify season for the experiment. Because anthocyanins can be obtained from a variety of foods, the amount of anthocyanin consumed by food may vary in different seasons. This is also a confounding factor that may affect the outcome.

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