Reviewer's report

Title: Protective effects of pomegranate (Punica granatum) juice on testes against carbon tetrachloride intoxication in rats

Version: 3 Date: 28 May 2013

Reviewer: Dario Acuña-Castroviejo

Reviewer's report:

In this work the authors assayed pomegranate juice against CCL4-induced testicular damage in rats. Sex hormones and markers of oxidative damage were analyzed in vehicle- and CCL4-treated animals. The results showed that CCL4 induced oxidative damage and reduced sex hormones, whereas pomegranate juice prevented these toxic effects of CCL4.

Major Compulsory Revisions:

1) It would be important to analyze the components of pomegranate juice, at least in terms of its antioxidant capacity. Moreover, the technique for preparation of the juice should be standardized.

2) Discussion, first paragraph: It cannot be stated that in the experiments performed the beneficial effects of P. juice depend on its content in some of the molecules described. It is necessary to measure these compounds in the domestic juice prepared for the experiments. The main problem is that the P. juice is not standardized and it is not possible to know its composition.

3) What is the explanation for the effect of CCL4 to increase testes size? Animals treated with CCL4 have an inhibition of the sex hormones. It depends on an edema produced by CCL4?

Minor Essential Revisions:

1) Introduction: The authors should start with the effects of CCL4 on testis and, then, with the description of the pomegranate beneficial effects.

2) Results, first paragraph: It says that treatment of rats with pomegranate juice before CCl4 caused a significant increase in both testes weight and relative testes weight. However, the figure 1 does not show such increase.

3) Figure 2 lacks the control values of MDA and NO

4) Data of Figure 2, and text: When the data are expressed as percentage of control, the control value should be 100.

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.