Reviewer’s report

Title: DNA repair deficiency in peripheral blood lymphocytes of endometrial cancer patients with a family history of cancer

Version: 1 Date: 31 March 2014

Reviewer: Amaya Azqueta

Reviewer’s report:

Reject

The paper is focused on the determination of the DNA background damage, the bleomycin-induced DNA damage (to check cellular susceptibility) and the DNA repair capacity of bleomycin-treated lymphocytes from endometrial cancer (EC) patients and controls using the comet assay. The idea is very interesting but unfortunately there is a technical problem that invalidates a big part of the study. The concentration of the bleomycin used is so high that the comet assay is saturated so the real DNA damage cannot be determined (they obtain about 87.61 % DNA in tail in controls and 98.66 % DNA in tail in EC patients when the comet assay is saturated at about 70 or 80% DNA in tail). Authors should have performed a concentration-response curve with bleomycin and lymphocytes and should have chosen some concentration in the linear part of the curve. This is also very important for the DNA repair determinations since authors cannot know the real level of DNA damage they start with (it can be that the level of the DNA damage in patients is much higher than in controls) and this is important since the cell is not going to repair with the same efficiency very different amounts of damage.

Level of interest: An article of importance in its field

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