Reviewer’s report

Title: Sorafenib modulates the radiosensitivity of hepatocellular carcinoma cells in vitro in a schedule-dependent manner

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Reviewer: Bruno Sangro

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This is an interesting manuscript in which authors present a series of experiments that at least provide a partial explanation for the already known impact of schedule in the combination of sorafenib and radiation therapy in animal models. There is no major drawback. However some inconsistencies should be fixed, and they are most probably the consequence of a poor English edition.

Major compulsory revision

1. English has to be checked throughout the manuscript.

Minor essential revisions

Introduction

2. The 3-5% 5-year survival rate and 80% of advanced cases at diagnosis are outdated.

3. Sorafenib prolongs in nearly 3 months the median survival of HCC patients

Material and methods

4. It is not clear throughout the study whether post-irradiation sorafenib means that cells are incubated immediately after irradiation for a 24-hour period or that 24 hours after irradiation cells are incubated for ? time.

5. Dose of radiation is 4 and 8 Gy in some experiments and 6 Gy in others. The reason for these variations should be explained.

Results

6. If cell viability is reduced by sorafenib then sensitivity is increased. Again English edition seems mandatory.

7. Figure 2 is confusing. Groups receiving sorafenib after irradiation should be better identified as sorafenib post-irradiation homogeneously in the manuscript.
Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited

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