Reviewer's report

Title: Evaluation of the impact of transient interruption of antiangiogenic treatment using ultrasound-based techniques in a murine model of hepatocellular carcinoma

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Reviewer: DAWEI CAI

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In this study, Marinelli et al evaluated the impact of interruption of sorafenib (an antiangiogenic drug) treatment in a murine model of HCC. The volume, elasticity and VEGFR2 of the tumors were measured by B-mode, elastosonography and molecular-CEUS ultrasound examinations at different time points. Finally the authors detected the levels of VEGFR2 in tumors by using western blot analysis.

Overall, the evidence presented appears to support the authors' main conclusion: a neoangiogenetic rebound after sorafenib treatment withdrawal in a murine model of HCC. However, several specific concerns are described below:

1. The amount of mice in this study is limited, and each group has different amount of mice. If more mice could be randomized in different groups equally, the data would be more convincing.

2. A sorafenib treated mice group without interruption should be added as control.

3. The data of figures 2 and 4 were measured at different time points, if they could be presented by histogram with standard deviation instead of curve diagram it would be more straightforward.

4. The data of VEGFR2 western blot analysis and percentage of non-enhanced areas in table 1 should be shown in detail instead of median or average value.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.