Reviewer's report

Title: Anticancer activity of extracts derived from the mature roots of Scutellaria baicalensis on human malignant brain tumor cells

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Reviewer: david Y zhang

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General

The authors attempted to identify antiproliferative effects of Scutellaria Baicalensis using primary and recurrent brain tumors from the same patient and the cells for resistant to BCNU, when this extract was used alone and in conjunction with BCNU. This is a well designed and well written manuscript and it addresses an important issue in examining the effect of extracts of this herb on cells from tumors that have recurred following standard therapies. This paper rightly deserves to be published in BMC Complementary and Alternative Medicine. However, I have following comments and concerns:

1. In the part of Background, several references should be required, such as: page 3, line 3 and page 4, last line 3.
3. Page 9, last line 1 and 2. â€œno significantâ€œ is contradictory.
4. The authors did not show which figure should be match to the description of the last paragraph on page 11, and also â€œa hallmark of apoptotic cells (Fig. 2b)â€œ in last line 3 on page 11 is not match to Figure 2b.
5. In figure 1C and 1D, the metabolic activities at 10th or 7.5th days between untreated group and 0.4% ethanol treatment group are significantly different, but there are no different at 15th days, how to explain this phenomenon?
6. Figure 4 showed that metabolic activity decreased significantly in the glioma cells treated with Scutellaria Baicalensis at concentrations of 100ug/ml for 2 days. But, from figure 1, there is no significant difference in the same cell line treated with same dose of SB for the same time. How to explain the different results.
7. In figure 5, the authors observed the combinatory effect of SB and BCNU using typpan blue exclusion assay, why did they use this assay instead of metabolic assay?
8. Figure 6 legend is not clear.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable