Reviewer’s report

Title: Synergistic Anti-proliferation Effects between Gambogic Acid and Docetaxel in Gastrointestinal Cancer Cells

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Reviewer: Xiaochun Xu

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In this study, the authors investigated the synergistic anti-tumor activity of combined gambogic acid and docetaxel in gastrointestinal cancer cells. They found that the combination treatment of these two drugs induced apoptosis of four cancer cell lines. Molecularly, gambogic acid dramatically reduced expression levels of beta-tubulin III, Tau, and surviving mRNA in tumor cells. In conclusion, this study demonstrated that combination of these two drugs could offer a novel treatment option for the patients with gastric and colorectal cancers.

Comments

1. It needs a strong rationale for why to combine these two drugs. What advantage may offer by combining them together? Do these two drugs target the same or different gene pathway(s) to obtain synergistic effects?

2. GI cancers are very diversified with different risk factors and etiologies; thus alteration of their gene pathway may also different. How do the authors justify to treat more than one types of GI cancer using combination of these two drugs?

3. Tubulin is usually used as a loading control like actin. Do gambogic acid and docetaxel inhibit tubulin expression or its functions? From this manuscript, the authors showed reduced expression of beta-tubulin III mRNA, do the authors have an explanation?

4. Do the authors need more data to support this manuscript for justifying publication?

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:

none