Author's response to reviews

Title: Protective effect of genistein on radiation-induced intestinal injury in tumor bearing mice

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Author's response to reviews: see over
Dear Editors

Thank you very much for your editorial decision letter, which also included the reviews of our manuscript by referees. We have made the changes as suggested by the reviewers. We have made during the revision in a point-by-point response to each of the comments.

We hope the revisions made the responses provided are satisfactory, and our manuscript is now acceptable for publication in the BMC COMPLEM ALTERN M.

Please, let us know if further revisions are needed.

Once again, thank you for all your help. We look forward to hearing from you.

Sincerely yours,

jskim@dirams.re.kr
Responses to the Editors' Comments:

Reviewer #1:
Comment 1. Authors should be addressed in method and discussion section about statistically difference between IR(10 Gy) and Genistein+IR(10Gy) about tumor size and stat genistein was not showed any radiosensitizing effects however it has anticancer effect.

Response: I appreciate your comment. As the editor commented, we have revised the description about anticancer effect discussion section as follows (Cleaned Manuscript-page14, lines 2-15):

“Furthermore, genistein has gained increasing attention because of its association with beneficial effects in cancer chemoprevention [15, 19, 20, 38, 39]. This study showed that a single treatment of genistein alone does not decrease tumors compared with the sham group, no significant difference was observed between treatment with vehicle and genistein with radiation exposure. Although, the single treatment of genistein has not effects on the cancer cell in this study, other studies have demonstrated that continuously treatment of genistein shows additive benefits in tumor radiotherapy, resulting in greater therapeutic efficacy [19, 20]. This study showed that combination therapy with 10 Gy irradiation and genistein produced the best tumor regression and growth inhibition among the groups. Some reports have shown that genistein used alone in vivo as well as in vitro can delay the growth of tumors [38, 39]. Some authors indicated that genistein in combination with other agents can delay tumor growth by inhibiting angiogenesis [40]. Hillman et al. [19, 20] also showed that genistein combined with irradiation for prostate cancer and renal cancer led to improved control of primary tumor growth and metastasis to lymph nodes compared with genistein or irradiation alone [19-21].”

Comment 2. The author's may like to include the response to editor's comment # 1 in the text to make the readers understand the radiation dose selection and the use of 10 Gy in a single fraction.

Response: We have added the description about single and fraction radiation in the discussion section as follows (Cleaned Manuscript-page14, lines 10-16):

“Although clinical radiotherapy usually involves fractioned radiation doses and not a single therapy, this study aimed to identify the radioprotective effect of genistein on intestinal injury induced by
radiation rather than its anti-cancer effect. Therefore, we used a single dose of radiation to induce intestinal injury because it is difficult to induce intestinal injury by fractioned radiation. Compared with fractioned radiation, the single exposure resulted in considerably less intestinal injury, indicating a substantial recovery during the 6 hr span between radiation fractions [27].”


Comment 3. The changes suggested by Dr Day (Reviewer # 1) though the authors mention to have corrected still exists in the text viz. the word “sacrificed” and "Strong antioxidant". The author may go for a thorough proof read. The changes suggested are indeed valuable.

Response: We have changed the statement “sacrificed” with “euthanized” in the revised manuscript. And we deleted the “strong” in the revised manuscript.

Responses to the Reviewers’ Comments:

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