Author's response to reviews

Title: Aqueous Extracts of Pluchea indica (L.) Less. Inhibit Proliferation and Migration of Cancer Cells Through Induction of p53-dependent Apoptosis

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Version: 3 Date: 19 November 2012

Author's response to reviews: see over
Author's covering letter for initial submission

Title: Crude aqueous extracts of Pluchea indica (L.) Less. inhibit proliferation and migration of cancer cells through induction of p53-dependent cell death

Authors:

Version: 1 Date: 16 November 2012

Comments:

Tom Rowles PhD
Executive Editor
BMC Complementary and Alternative Medicine
2012/11/16

Dear Dr. Rowles:

Enclosed please find the revised manuscript entitled, “Crude aqueous extracts of Pluchea indica (L.) Less. inhibit proliferation and migration of cancer cells through induction of p53-dependent cell death” by Jonathan J Cho, Chung-Lung Cho, Chiu-Li Kao, Chien-Ming Chen, Chao-Neng Tseng, Ya-Zhe Lee, Li-Jen Liao and, Yi-Ren Hong, submitted for your consideration to be published in BMC Complementary and Alternative Medicine as an original research report.

In this report, we demonstrated for the first time that that the in vitro anti-cancer property of P. indica curde aqueous extracts in the inhibition of cancer cell proliferation, focus formation, and migration and the underlying molecular mechanism. Protein expression of phosphorylated-p53 and p21 were induced in GBM8401 and HeLa cancer cells treated with P. indica root aqueous extracts indicating that molecular mechanism underlying the inhibition may be attributed to p53-dependent p21-induced cell growth arrest and the following apoptosis of cancer cells. The in vitro anti-cancer effects of P. indica leaf and root aqueous extracts indicate that it has sufficient potential to warrant further examination and development as a new anti-cancer agent.

In answering the comments of the reviewer and the associate editor, as well as editorial, a response letter is followed with a point-by-point description for you and the associate editor’s reference.

Respectfully submitted,

Chung-Lung Cho, PhD

Response to Reviewer’s report:
Title: Aqueous Extracts of Pluchea indica (L.) Less. Inhibit Proliferation and Migration of Cancer Cells Through Induction of p53-dependent Cell Death
Version: 2 Date: 20 September 2012
Reviewer: praveen rishi

Reviewer's report:
Minor essential revisions
1. We greatly appreciate your suggestion that the death of cancer cells after treatment with plant extracts is caused by both necrosis and apoptosis. Hence, we have modified the title as well.
2. Studies regarding association of lipid peroxidation and upregulation of p53 and p21 have been referred in the fourth paragraph (p. 15) in the discussion section.

Associate Editor comments:
1. The major phytochemical components and their percentage identified in the extract have been added in the phytochemical screening of the results section and Table 1 (p.25).
2. Secondary assays to validate the apoptotic effect of the extract have been performed and the results are shown in Figure 6, Annexin V/PI fluorescence staining and analyzed by fluorescence microscopy, and Figure 7C, Western blot of enhanced expression of cleaved caspase-3.
3. Each experiment in Figure 7 has been repeated three times. The result is statistically significant (P < 0.005).

Editorial comments:
We have described in detail how the blots in Figure 6 (Figure 8 of the revised version) were generated, and clarified specifically that the control and experimental groups were generated from the same blot in Western blot analysis in Methods section and in the legend of the Figure 8.