Journal of Pharmacopuncture

ISSN 2093-6966 [Print], ISSN 2234-6856 [Online]
Journal of Pharmacopuncture 2015;18[2]:086-087
DOI: http://dx.doi.org/10.3831/KPI.2015.18.019

Correction

Ethanolic Extract of *Marsdenia condurango* Ameliorates Benzo[a]pyrene-induced Lung Cancer of Rats

-Condurango Ameliorates BaP-induced Lung Cancer in Rats-

Sourav Sikdar, Avinaba Mukherjee, Anisur Rahman Khuda-Bukhsh*

Cytogenetics and Molecular Biology Laboratory, Department of Zoology, University of Kalyani, Kalyani, India

Key Words

apoptosis, caspase-3, complementary and alternative medicine (CAM), Condurango, lung cancer, reactive oxygen species (ROS)

The original article Ethanolic Extract of Marsdenia condurango Ameliorates Benzo[a]pyrene-induced Lung Cancer of Rats (J Pharmacopuncture 2014;17(2):7-17, DOI: http://dx.doi.org/10.3831/KPI.2014.17.011) by Sourav Sikdar, Avinaba Mukherjee, and, Anisur Rahman Khuda-Bukhsh, was published with an incorrect method in abstract due to a production error. The correct method in abstract are reported below.

Abstract

Methods: Fifteen male and 15 female Sprague-Dawley (SD) rats were treated with 0.28 mg/kg of Sweet Bee Venom (SBV) (high-dosage group) and the same numbers of male and female SD rats were treated with 0.2 mL/kg of normal saline (control group) for 13 weeks. We selected five male and five female SD rats from the high-dosage group and the same numbers of male and female SD rats from the control group, and we observed these rats for four weeks. We conducted body-weight measurements, ophthalmic examinations, urinalyses and hematology, biochemistry, histology tests.

Received: Apr 11, 2014 **Reviewed:** May 29, 2014 **Accepted:** Jun 09, 2014

This text was incorrect and should be:

Abstract

Objectives: Condurango is widely used in various systems of complementary and alternative medicine (CAM) against oesophageal and stomach ailments including certain types of cancer. However, until now no systematic study has been conducted to verify its efficacy and dose with proper experimental support. Therefore, we examined if ethanolic extract of Condurango could ameliorate benzo[a]pyrene (BaP)-induced lung cancer in rats *in vivo* to validate its use as a traditional medicine.

Methods: After one month of scheduled BaP feeding (50 mg/kg body-weight), lung cancer developed after four months. BaP-intoxicated rats were then treated with Condurango (0.06 mL) twice daily starting at the end of the four months for an additional one, two and three months, respectively. Effects of Condurango were evaluated by analyzing lung histology, reactive oxygen species (ROS) and antioxidant biomarkers, DNA-fragmentation, RT-PCR (Reverese Transcriptase-Polymerase Chain Reaction), ELISA (Enzyme linked immunosorbent assay) and western blot of several apoptotic signalling markers and comparing the results against those obtained for controls.

Results: A histological study revealed gradual progress in lung tissue-repair activity in Condurango-fed cancer-bearing rats, showing gradual tissue recovery after

*Corresponding Author
Anisur Rahman Khuda-Bukhsh. Department of Zoology, University of Kalyani, Kalyani-741235, India.
Tel:+91-33-2582-8750 Fax: +91-33-2582-8282
Email: prof_arkb@yahoo.co.in

three months of drug administration. Condurango has the capacity to generate ROS, which may contribute to a reduction in anti-oxidative activity and to an induction of oxidative stress-mediated cancer-cell death. Condurango-activated pro-apoptotic genes (Bax, caspase-3, caspase-9, p53, cytochrome-*c*, apaf-1, ICAD and PARP) and down-regulated antiapoptotic-Bcl-2 expression were noted both at mRNA and protein levels. Studies on caspase-3 activation and PARP cleavage by western blot analysis revealed that Condurango induced apoptosis through a caspase-3-dependent pathway.

Conclusions: The anticancer efficacy of an ethanolic extract of Condurango for treating BaP-induced lung cancer in rats lends support for its use in various traditional systems of medicine.

We apologize to the authors and readers.