Author's response to reviews

Title: In-vitro and in-vivo validation of ethnopharmacological uses of methanol extract of Isodon rugosus Wall. ex Benth. (Lamiaceae)

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Version: 4
Date: 31 January 2014

Author's response to reviews: see over
Dear Editor

BMC Complementary and Alternative Medicine

Subject: Revised MS. 8769346731097018

Dear Sir,

I am highly thankful for referee comments for manuscript No. MS: 8769346731097018 entitled, “In-vitro and in-vivo validation of ethnopharmacological uses of Isodon rugosus.”

Following is specific response to referee comments

Q.1. Why authors used for antiemetic, analgesic and antipyretic, antioxidant activities, just a single dose of 150, 200, 80 mg/kg of extract? And how do these single doses was selected without conducting acute toxicity studies?

Ans. 1.

Antiemetic activity was performed at doses (50 mg/kg, 100mg/kg, 150mg/kg, 200mg/kg). 150mg/kg was observed to be more potent antiemetic dose. Analgesic activity was performed at doses (100mg/kg, 200mg/kg, 300mg/kg). 200mg/kg showed effective analgesia. Antipyretic activity was performed at doses (50mg/kg, 80mg/kg, 10mg/kg). 80mg/kg of the crude extract was potent antipyretic. In these activities dose higher than the potent dose was found to be toxic. Antioxidant activity was performed in vitro. It was not tested in vivo.

Q. 2. How did authors determine IC50/ED50 from a single dose?

Ans. 2.

The IC50 values were determined on addition of multiple dilution of Ir.Cr (i.e. 0.5, 0.25, 0.125, 0.0625, 0.0313, 0.015 mg/ml) and serine/baicalin (i.e. 0.5, 0.25, 0.125, 0.0625, 0.0313, 0.015 mg/ml).
mM) to the reaction mixtures and data obtained was analyzed on EZ–Fit Enzyme kinetics software (Perrella Scientific Inc. Amherst, USA) decrease in absorbance indicated increase in enzyme inhibitory activity.

**Q.B.** What were the major limitations of the work? Please state them at the end of discussion

**Ans.B.**

We used crude extract of plant which is a combination of multiple constituents. So exact constituent responsible for these activities should be pinpointed by conducting further research and exploring the individual constituent. The bioactive constituent responsible should be isolated, quantified and its structure should be elaborated by analytical techniques.

I am available if there are any further queries.

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**Highest Regards**

**Prof. Dr. Vincenzo De Feo**

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