



SDI Review Form 1.6

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	2014_IJBcRR_13433
Title of the Manuscript:	Contraceptive Effect of Ethanol Extract of <i>Dioscorea villosa</i> Tuber on Reproductive Hormones of Female Wistar Rats
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Compulsory REVISION comments	Abstract - Lines 12-14: "The extract at all doses significantly ($p < 0.05$) decreased the levels of serum luteinizing hormone (LH). However, the extract at 200 and 400 mg/kg body weight did not significantly ($p > 0.05$) alter the concentration of LH in the serum of the animals when compared with the control": you are supposed to compare results from experimental groups (B, C and D) with those from the control group (A). So what is your control group when serum levels of LH decrease? - Lines 19-20: "The extract at all doses significantly ($p < 0.05$) increased the serum follicle stimulating hormone (FSH) concentration in the treatment groups. Administration of the extract at 100 and 200 mg/kg body weight did not significantly ($p > 0.05$) alter the concentration of FSH in the serum of the animals when compared with the control": when FSH serum levels decrease what is the control group? With which group are you comparing this result? - FSH is known to induce the proliferation and maturation of ovarian follicle	



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	cells which produce estrogens and particularly estradiol as they are growing. So how do you explain the fact that your extract decreased serum levels of estradiol but increase serum levels of FSH? Introduction - Lines 61-71: from “It is an herbaceous twining ... chemically converted to progesterone contraceptives and cortisone [18]”: Please delete all. - Lines 84-86: “Therefore, the present study was designed to investigate the contraceptive effect of the ethanolic extract of <i>Dioscorea villosa</i> tuber on reproductive hormones of female albino rats”: this is not enough to justify your work! Is this plant traditionally used as a contraceptive? What prompted you to carry out this study? Material and method - 2.1.1 Plant materials and authentication: please provide the voucher number of that plant! Results - Lines 161-164: Compared with the distilled water treated control animals, the extract at all doses significantly ($p<0.05$) decreased the concentra: ion of	
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luteinizing hormone (LH) in the serum of the animals (Figure 1). The extract at 200 and 400 mg/kg body weight did not significantly ($p>0.05$) alter the concentration of LH in the serum of the animals (Figure 1); not clear!!! It is impossible to observe this in your figure. Reformulate!

In that figure (figure 1) what is meaning of “a, b and c”? These letters refer to what? Correct throughout the manuscript.

- Lines 184-185: with which group are you comparing your result? You cannot say that the extract significantly increased FSH serum levels at all tested doses but the effect was not statistically significant at 100 and 200 mg/kg BW. If so, then there was no significant increase at all tested doses! Please revise such kind of statement throughout the manuscript.

Discussion

- Lines 230-232: your results show that the extract at 400 mg/kg BW markedly increased FSH serum concentration but did not significantly affect estradiol levels. Explain why, since FSH is supposed to stimulate ovarian follicle cell proliferation and therefore to stimulate estradiol synthesis.

- Lines 241-244: What do you mean by “D. villosa will only have an effect on serum estradiol concentration when administered at a high dose”? The decrease of the serum concentration of estradiol at 100 and 200 mg/kg BW is also an



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	effect! - Lines 244-245: please give more informations about this statement: “The extract increased the serum FSH levels at 400 mg/kg body weight by stimulating the hypothalamus to release high quantities of GnRH”. Did you investigate the effects of D. villosa extract on the production of GnRH or on the mRNA expression of GnRH in the hypothalamus? You should explain why a substance that increases FSH serum concentrations and decreases LH serum concentrations may be used as an oral contraceptive. - Line 248: what do you mean by “consequential”?	
Minor REVISION comments	If there any ethical issue, please clarify.	
Optional/General comments		

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