



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">International Journal of Biochemistry Research &amp; Review</a>                                                      |
| Manuscript Number:       | 2013_IJBcRR_6262                                                                                                                 |
| Title of the Manuscript: | Effects of Orlistat and herbal mixture extract on renal function and oxidative stress biomarkers in a rat model of high fat diet |
| Type of the 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.

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**PART 1: Review Comments**

|                                        | Reviewer's comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Author's comment (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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <b>Compulsory</b><br>REVISION comments | <p><b>ABSTRACT</b></p> <p><b>In conclusion:</b> "..... HFD and reduce feed intake, MDA level and decreased oxidative stress in renal tissues" clear, when MDA is an oxidative stress marker why both together?</p> <p><b>INTRODUCTION</b></p> <p>You have described only clinical and epidemiological studies, experimental justifications required for the estimated parameters. Nothing talked about the taken compounds, describe their properties and mode of action on oxidative stress with recent references.</p> | <p>I wrote it again. Conclusion: Rats fed high fat diet showed, hypertriglyceridemia, increased oxidative stress and renal alteration. Moreover, suggesting association between lipid peroxidation, obesity and nephropathy, while treatment with Orlistat and herbal mixture ameliorated the harmful effects of the high fat diet and reduce feed intake.</p> <p>It was found that feeding of HFD inducer for hypercholesterolemia (was made by adding 30% lard or beef tallow and 5% sunflower to the control diet) caused a significant increase in serum MDA level compared with control group. Oxidative stress has been commonly identified in obesity related renal diseases and may be the mechanism underlying the initiation or progression of renal injury in obesity.</p> <p>While treatment with Garcinia is similar to Orlistat in action significantly decreased MDA level compared with those in group HFD. Garcinia treatment enhances renal function as a result of HCA-SX derived from Garcinia cambogia (hydroxy citric acid HCA-SX, Super CitriMax) which attenuated the increased of oxidative stress biomarkers through reducing lipid peroxidation (MDA).</p> <p>Treatment with herbal mix showed that decrease in renal function tests and improvement of kidney function. Nutritional value of seeds and oil is also very high because it based on high protein content and high energy potential due to high percent of oil. Pumpkin seed and its oil are rich in unsaturated fatty acid due to high omega -3 fatty acid. Some research had demonstrated that pumpkin seed oil (PSO) could remarkably reduce bladder pressure, increase bladder compliance and reduce urethral pressure. Peanuts shell was observed that it contained different bioactive compounds: flavonoids (luteolin and eriodictyol apigenin and chrysin), fatty acids, additional constituents represented by coumarin derivatives (esculetin and daphnetin like compounds) and phenolic acids (coumaric and ferulic acids). PSE showed in vitro inhibitory activity on pancreatic lipase (PL) in a dose</p> |



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|  | <p><b>MATERIALS AND METHODS</b></p> <p><b>Diet:</b> How the high fat diet has prepared? Describe dietary ingredients and preparation method. You said “herbal mixture” how did you treat the animals? By mixing extract in oil or separately. How you fixed the doses?</p> <p><b>The used methods are not clear, rewrite the method section.</b></p> <p><b>RESULTS</b></p> <p>Results section is too lengthy with many heading, it should be reduced up to 20% of the present length.</p> <p><b>Discussion</b></p> <p>It is too lengthy with heading, it should be brief and supportive to the present results. The conclusion is not clear, rewrite showing the rationale of the</p> | <p>dependent manner and also exerted a mild inhibitory action on lipoprotein lipase (LPL) activity. Also, it was found that peanut shell extract had a strong renal protective effect against glycerol-induced acute renal failure (ARF). Pretreatment with extract peanut shell (EPS) in acute renal failure (ARF) rats caused blood urea nitrogen (BUN) and creatinine (Cre) levels significantly lower.</p> <p>The high fat diet: composed of 300 g concentrates, 350 corns, 300 g beef tallow 50 g vitamins, minerals and fibres. Diet of high fat diet (HFD) would be (lard and sunflower oil) and starch for induction of obesity from local market. High fat diet (HFD) diet used as inducer for hypercholesterolemia. High fat diet (HFD) was made by adding 30% lard or beef tallow and 5% sunflower to the control diet.</p> <p>Pumpkin oil: was purchased from a local market, it is a liquid is given by oral gavage with dose 5mg/kg bw/day. Ethanolic extract of Nutshell was prepared by soaking 100 g of dry nutshell in 500 ml ethyl alcohol 95% with daily shaking for 5 days and kept in a refrigerator. Ethanol was evaporated using a rotatory evaporator apparatus which was attached with vacuum pump, and then the extract was used 2 mg/kg bw/day. Both herbal were mixed together (1:1).</p> <p>I wrote it again.</p> <p>Ok</p> <p>- Ok . Conclusion : From the above results we concluded that there is a significant relationship between fatty diet intake and structural changes to the kidney via elevating urea, creatinine, uric acid, TG, LDL, and the renal injuries were associated with increased oxidative</p> |
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|                                            | study          | stress monitored by increased MDA level whereas GSH and SOD production decreases in addition to a decrease in the numerical density of glomeruli, tubular deformations, prominent dilatation of the renal vessels, tubules, glomerular necrosis and atrophy and basal membrane thickening. While oral administration of Orlistat and herbal mix extracts reduced the level of circulating lipids as well as the decrease of body weights in male albino rats. These extracts improve kidney functions by decreasing oxidative stress (MDA), increasing antioxidant factors (GSH and SOD) and improve the defects that caused by obesity. |
| <b>Minor</b><br>REVISION comments          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b><u>Optional/General</u></b><br>comments | Not acceptable |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |