

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 16404

Title: Ameliorative effect of lutein on high fat diet induced nonalcoholic fatty liver disease and related underlying mechanism in rats

Reviewer's code: 03023594

Reviewer's country: Taiwan

Science editor: Jing Yu

Date sent for review: 2015-01-16 15:40

Date reviewed: 2015-01-22 19:01

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input checked="" type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input checked="" type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

It is a well-designed and thorough study getting promising result. My only question is that there are so many phytochemicals and antioxidants might have health promoting effect, it will be better if the authors could state more circumstantially the reason why they select this particular product.

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Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 16404

Title: Ameliorative effect of lutein on high fat diet induced nonalcoholic fatty liver disease and related underlying mechanism in rats

Reviewer's code: 02944960

Reviewer's country: United States

Science editor: Jing Yu

Date sent for review: 2015-01-16 15:40

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input checked="" type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

The author evaluated the role of Lutein supplementation on hepatic fat content and insulin sensitivity measures among high-fat diet fed rats. The results seem quite promising. However the manuscript seem to be severely limited in a number of ways as mentioned below: 1: Both abstract and manuscript are significantly limited in writing and require significant overhaul in terms of English language. It would be difficult for the English readers to follow the manuscript in its current format. I think the authors should use professional services to improve the language content of the manuscript 2: There is disparity especially in the methodology section of the abstract and the manuscript. The authors mentioned in the manuscript that the rats were fed high-fat diet for 10 days whereas in the abstract, they mention the duration to be 55 days (page 3, line 59). 3: The authors need to clarify in the abstract that the lutein was given from day 10 to day 55 as mentioned in the manuscript section (page 3, line 60). 4: The authors mentioned a number of abbreviations in the abstract without explaining them first. Please explain the abbreviations first and then they can be used as such later in the abstract and manuscript sections 5: The authors need to clarify further how

the 4 groups were made based on serum cholesterol level (page 7, line 180) 6: The analysis plan need to detailed further in the statistical analysis portion. The authors should name statistical tests that were used to compare various groups. 7: The baseline characteristics of the rats in term of weight and cholesterol levels prior to start of high-fat diet should be mentioned. If the rats were obese to begin with, high-fat diet may worsen already existing NAFLD in these rats. 8: Is it possible to measure the size of reduction of liver fat content (figure 4 in terms of percentage reduction) in rats receiving Lutein supplementation? 9: The results are not consistent for increasing concentrations of Lutein on serum and liver cholesterol parameters. The authors should explain the disparities in these results? Lutein 50mg seem to be working on liver total cholesterol, but has not effect on liver triglyceride or any of the serum cholesterol parameters (table 2). 10: Figure 1. The total cholesterol and triglyceride levels of HFD rats are statistically different compared to the ND group as per table 1. What does b indicate in figure 1? 11: It seems that HOMA-IR, HOMA B, IRS2, P13K, GLUT2, PPAR- α and SIRT1 measurements were performed in only small number of rats (figure 5,6 and 7). How these rats were selected for the analysis? This will be a major limitation of this study. 12: It will be better to have actual values for comparison rather than just mentioning p values in the result section. 13: Page 11, line 289: $p < 0.01$ is for 25mg/kg instead of 12.5mg/kg as per figure 5 14: Figure 6: The authors mentioned that mRNA expression was upregulated significantly in P13K and GLUT2 (fig 6B and 6C). The protein expression was also regulated (fig 6D, 6E and 6F) in the lutein fed rats, were they were statistically significant ($p < 0.05$)? 15: The authors should mention potential limitations of the study.