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Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	2013_IJBcRR_7590
Title of the Manuscript:	Comparison of Apo B and TG/HDL ratio with HOMA IR model to predict insulin resistance in patients with metabolic syndrome
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.

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PART 1: Review Comments

	Reviewer's comment: The aim of the study was to evaluate TG/HDL ratio and Apo B levels in metabolic syndrome patients to predict Insulin resistance. The authors report that ApoB is more significant and a better predictor of IR than TG/HDL suggesting that it could be adopted in routine laboratory practice to predict insulin resistance.	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>
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<u>Compulsory</u> REVISION comments	The title states "Comparison of Apo B and TG/HDL ratio with HOMA IR model" There was no data showing comparisons. There were only correlations. And comparisons of metabolic parameters for the patients and controls. The results are inconsistent regarding the correlation (r) values in the text and the figures as sometimes the correlation of TG/HDL with insulin resistance appears as 0.029 (line 101) and in the abstract it is 0.29 and figures. Similarly apoB shows different correlation values with IR such as in the figures showing 0.4 and in line (102) 0.04. Methodology: The authors mention 110 Patients and 50 were controls. The word patients should be removed. Also the number of recruited subjects is inconsistent as it appears as 110 in the abstract with details of grouping, and in the methodology it appears as 120 with no details of grouping. Methodology is incomplete as there is no description of kits, machines or material used in measurements Line 83: what analyzers. The results section is very short and missing information and there is no mention of regression analysis in the results section. High TG values may affect the Friedewald's formula. The TG range should be stated. What parameters were included in the multiple regression analysis? There is no information about that in the results, and which parameters were non	We agree with the comment made by the reviewer. Although Apo B is compared with TG/HDL and HOMA IR model for assessing insulin resistance, the title is now changed to, "Assessment of Apo B as an indicator of IR in comparison to TG/HDL ratio to HOMA IR." The correlation values are corrected. Apologies for the mistake. (line no 119-121) The word patient is removed and the number of subjects is corrected. Sincere apologies for the mistake.(line no 14,72) The description of the kits and auto analyser is mentioned in the study as suggested. Pl. Refer to line no 89-91,95-97 The omission of regression analysis in the result section is regretted. The result section is made for informative and regression analysis results are mentioned. The TG range (150-192 mg/dl) is mentioned in the manuscript.Pl. refer to line no.91,92 The multiple regression analysis one model included HOMA IR as dependant variable and TG/HDL as independent variable whereas another
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	significant predictors? Redundancy of the results in the tables that were explained in unnecessary detail in the text. It is not clear if the correlation and regression analysis was done on patients only or for all subjects included in the study. If the regression was done only for the patients, what are the values for the controls in comparison? The results section is very short and missing information and there is no mention of regression analysis in the results section. Graphs presented are inconsistent considering the values on the Y axis for insulin resistance. The discussion contains information should in the results section such as regression results. No figure legends appear in the text. Line 125-127: States that "When combined multivariate analysis of TG/HDL and Apo B with HOMA IR was performed, the regression model indicated that TG/HDL ratio is a non significant variable whereas Apo B is strongly significant."	model included Apo B as independent variable. _____ _____ The information pertaining to regression analysis is mentioned in the result section. The regression analysis was performed for controls as well as study groups. The result for control is incorporated in manuscript. The information pertaining to regression analysis is mentioned in the result section.(line 118-123) . The graphs with regression analysis is presented in corrected manuscript. Pl. Refer to graph 1 & 2. The regression results are mentioned in the result. The figure legends are mentioned in the text. (line no.133,145) When regression analysis was done taking either TG/HDL-C or Apo B individually, TG/HDL showed fair significance but when combined regression analysis was done Apo B showed higher significance and thus better tool for predicting
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	How did the model show a R^2 value of 0.087 indicating 8.7% variation attributed to TG/HDL when it was excluded from the model as insignificant? These results are not clear. What parameters were included in the regression model? There is no regression model shown for this study. Line 105:" In our study we have used HOMA IR, the widely accepted Model for assessment of IR and compared with both TG/HDL and Apo B. Are the authors comparing HOMA IR to apo B and TG?HDL or are they performing association analysis? Please rephrase. Also, the title should be different considering that the authors were presenting correlations only.	insulin resistance. The regression model is incorporated in the study. Refer to table no. 2 Refer to result section, line no. 118-123 We have compared the conventionally used HOMA IR to both TG/HDL ratio and Apo B levels for insulin resistance. Title is changed accordingly.
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<u>Minor</u> REVISION comments	References: 20: authors , commas ..etc 25, Year? 26: cir cir What is the refrence 169 Stating HDL-C and LDL-C throughout the manuscript has to be consistant as sometimes it appears as HDL. In the conclusion the term lipogenic applies to fat storage factors and not any lipid parameters. Rephrase	All corrections done. Cir Cir is the name of the journal HDL-C and LDL-C is stated consistently throughout the manuscript. Apologies for that. Rephrasing is done.
<u>Optional/General</u> comments	The manuscript has major flaws. However, If the authors have all the data as declared, it needs to be rewritten to be acceptable.	