Author's response to reviews

Title: Relationship between neutrophil-lymphocyte ratio and insulin resistance in newly diagnosed type 2 diabetes mellitus patients

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Author's response to reviews: see over
Author's response to reviews  Title: Relationship between neutrophil-lymphocyte ratio and insulin resistance in newly diagnosed type 2 diabetes mellitus patients

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Author's response to reviews: see over
Reviewer's report

**Title:** Relationship between neutrophil-lymphocyte ratio and insulin resistance in newly diagnosed type 2 diabetes mellitus patients

**Version:** 1  **Date:** 12 November 2014

**Reviewer:** Kultigin Turkmen

**Reviewer's report:**

The authors investigated the relation between NLR and Insulin resistance in newly diagnosed T2DM patients. They found that NLR values of the diabetic patients were significantly higher than those of the healthy controls \((P < 0.001)\), and the NLR values of the patients have a HOMA-IR value of 2.0 than those of the patients have a HOMA-IR value of 2.0. They also concluded that Increased NLR was significantly associated with IR, and high NLR values may be a reliable predictive marker of IR.

In general the study is well designed and presented. Hence, this study can be published, however, a number of queries have arisen.

**Major Comments**

1. Selection of patient population needs to be described briefly.

   **Our description on the selection of patient population is now concise.**

2. The authors should avoid the duplication of the results of the study. If they present the results in tables, they do not need to present them in the text. They also should delete the results (for instance regression results) from discussion part.
Most of the redundant information in the text has been deleted. The few places left are left deliberately for easy understanding.

3. The authors did not clearly conclude the results and they should discuss their findings briefly in the discussion section.

Our results and findings are now concluded in the first paragraph of the discussion section.

4. In conclusion they wrote a sentence beginning with ‘The NLR values of diabetic patients must be calculated.....’. Must is very strong term and it is better to use might.

Change made as indicated by the reviewer.

Minor Comments:

1. There are many grammatical and spelling errors that should be corrected.

We have double-checked our grammar and spelling.

2. Cross-sectional nature of the relationship need to be underlined in the abstract section.

Change made as indicated by the reviewer.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: I declare that I have no competing interests
Reviewer's report

Title: Relationship between neutrophil-lymphocyte ratio and insulin resistance in newly diagnosed type 2 diabetes mellitus patients

Reviewer: V V Mohan

Reviewer's report:

COMMENTS TO THE AUTHORS

Title: Relationship between neutrophil-lymphocyte ratio and insulin resistance in newly diagnosed type 2 diabetes mellitus patients

The article investigates the association of Neutrophil Lymphocyte Ratio (NLR) with insulin resistance in newly diagnosed Type 2 Diabetes patients. The study suggests significantly higher Neutrophil to Lymphocyte ratio (NLR) in newly diagnosed diabetes patients than in control subjects. Patients were again grouped based on the HOMA-IR and have shown its association with NLR. Evaluating NLR could be a notable progress in the screening and early diagnosis of diabetes as it is readily available and cost effective.

Major & Minor concerns:

1. Since the association of NLR with insulin resistance has already been reported previously, authors should emphasize the novelty of current study that lies in the selection of newly diagnosed diabetic subjects.

   Change made as indicated by the reviewer.

2. Authors stated that the control subjects were sex matched. However the Table 1 shows the unequal number of male and female subjects. Explain?
The statement has been changed to “age- and BMI-matched”. We were trying to express that the gender proportion of the two groups had no statistical difference.

3. Authors have to address the advantage of analyzing NLR over estimating the total WBC count that has already been linked to subclinical inflammation

The advantage has been addressed in paragraph 4 of the discussion section, e.g. stable against physiological conditions that raise or lower the neutrophil and the lymphocyte count at once.

4. The criteria for diagnosis of diabetes are not mentioned and the clinical details on glucose levels and HbA1c need to be included in the Table 1.

The criteria for diagnosis of diabetes have stated in the Definitions section. Tables 1 and 2 have been merged. The merged table includes glucose levels and HbA1c data.

5. Both the Tables 1 and 2 provide clinical information and may be combined into one.

Change made as indicated by the reviewer.

6. The article is very poorly written with typographical and grammatical errors and need to be rewrite.

We have double-checked our grammar and spelling.

7. The references provided need to be formatted correctly

Change made as indicated by the reviewer.

8. Authors fail to refer some of the relevant publications that provide similar findings (Shiny et al 2014, Sefile et al 2014)
Change made as indicated by the reviewer.