Author's response to reviews

Title: High glycemic load, milk and ice cream consumption are related to acne vulgaris in Malaysian young adults: a case control study

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Author's response to reviews: see over
Date: 29 July 2012

Editor,
BMC Dermatology

Dear Editor,

Submission of Revised Manuscript ID 4033353556681567 Entitled Are Dietary Patterns Related to Acne Vulgaris in Malaysian Young Adults?: A Case Control Study

With reference to the above matter, I am forwarding the revised manuscript for publication in your reputed journal. Thank you for accepting our manuscript and great comments from the expert reviewers. We appreciate the comments by the reviewers as they helped us to improve our manuscript. I would like to inform that the title of the manuscript has been changed to: High glycemic load, milk and ice cream consumption are related to acne vulgaris in Malaysian young adults: a case control study. Responds to reviewers’ comments and amendments made are included in the following tables.

I shall wait for your valuable decision.

Thank you for your support

Sincerely yours,

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Feedback to Reviewers: (MS:ID 4033353556681567 - Are dietary patterns related to acne vulgaris in Malaysian young adults?: a case control study) 
Noor Hasnani Ismail, Zahara Abdul Manaf and Noor Zalmy Azizan

New title: High glycemic load, milk and ice cream consumption are related to acne vulgaris in Malaysian young adults: a case control study

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Reviewer 1: Bodo Melnik

<table>
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<th>No</th>
<th>Reviewer's Comments</th>
<th>Authors’ Feedback</th>
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<tbody>
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<td>1</td>
<td>The presented case control study investigates the role of diet in relation to the occurrence of acne. This paper provides sound evidence that 1) a high glycemic load and 2) increased frequencies of milk and ice cream intake are both associated with acne. Australian and South Korean investigators provided the first evidence for the role of high glycemic load in acne. The authors of this study provide the first clinical evidence for the relationship between milk intake and acne. Their data support epidemiological data of Adeborowomo et al. who reported the association between milk/dairy consumption and acne. For this reason, this paper is of utmost importance for clinical dermatology and should be published after considering some major changes, which may further improve the quality of this paper.</td>
<td>We really appreciate the compliments given by the reviewer. This study was designed for undergraduate student with a collaboration effort between two professions, i.e. dermatologist and dietitian. Your words of appreciation will really boost student’s morale and interdisciplinary collaboration in research.</td>
</tr>
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General remarks:

| 2  | The question posed by the authors is well defined and the methods are appropriate and well defined. The results and statistical data are sound. I suggest to modify the title: “High glycemic load and milk / ice cream consumption are related to acne vulgaris in Malaysian young adults.” | We appreciate the suggestion. The title has been modified according to reviewer’s suggestion. The new title of the article is: High glycemic load, milk and ice cream consumption are related to acne vulgaris in Malaysian young adults: a case control study |
3. The abstract conveys precisely the message of the obtained results. We appreciate the compliments.

Major changes for improvement of this manuscript:

4. **Background:**

   The authors should clarify, that the association between milk/dairy consumption and acne (references 6-8) was based on retrospective and prospective epidemiological data first reported by Adebamowo et al. in the United States of America. This is of importance, because the authors are the first group providing direct clinical evidence by their case control study for this important association.

   The authors mention the paper of Fulton et al. (4), which described no association between chocolate and acne vulgaris. The authors should briefly comment on that paper. This misleading paper compared chocolate and sweet vegetable oil bars, which had the same glycemic index (GI not yet defined at that time), and thus compared apples with apples. This paper unfortunately delayed and confused the relationship between acne and diet for many decades.


They should also mention that another group has already proposed a hypothesis for the diet-induced impact of insulin/IGF-1 signaling in acne, as both high glycemic load and dairy proteins increase the serum levels of insulin and IGF-1, important promoters of sebaceous glands and sebaceous lipogenesis (Melnik BC. Evidence for acne-promoting effects of milk and other insulinotropic dairy products. Nestle Nutr Workshop Ser Pediatr Program 2011; 67:131-45; Melnik BC, John SM, Schmitz G. Over-stimulation of insulin/IGF-1 signaling by Western diet may promote diseases of civilization: lessons learnt from Laron syndrome. Nutr Metab (Lond) 2011; 8:41).

Milk produced by persistently pregnant cows contains substantial amounts of steroids and androgen-precursors, which have been suggested to play another role in acne pathogenesis (Danby FW. Nutrition and acne. Clin Dermatol 2010; 28:598-604; Danby FW. Acne: Diet and acneigenesis. Indian Dermatol Online J 2011; 2:2-5).

5. **Discussion:**
In the discussion the authors should make some statements concerning the “theory of disturbed intestinal absorption” in acne. In Westernized countries more than 80% of adolescents are affected by acne. Does the whole population suffer from abnormalities of intestinal permeability? The most important mechanism of milk signalling is the postprandial fast upregulation of insulin secretion and the long-lasting increase in serum IGF-1 levels (see above cited references).

Very good comment on the subject matter. We have included some statements in the discussion section regarding the theory. Please refer Page 13, Paragraph 1.

6. **Limitations of the study**
The authors should state that they did not measure the amount of consumed dairy protein, which may be the most important We are thankful for the suggestions. The limitation has been included.
determinant for the acne-promoting effects of milk.

<table>
<thead>
<tr>
<th>Minor mistakes:</th>
<th>Grammar mistakes and typing errors are regretted. Amendments have been made.</th>
</tr>
</thead>
</table>
| 7. Page 2, results, line 4:     
   … to their counterparts in the control group… | |
| Page 3, Background, first line:     
   … in the United Kingdom | |
| Page 5, third paragraph, second and third line:     
   … in the control group..     
   … intake between the case and … | |
| Page 6  
Third paragraph, 6th line:     
The majority of case (86.4%) drank milk… | |
| Page 7, Discussion, second line:     
… considering factors like BMI and gender. | |
| Page 8, second paragraph, line 6:     
Our data confirmed epidemiological studies performed in the United States (6-8). | |
| Page 17, reference 14:     
Please add the volume of the paper. | |
| 8. Quality of written English: Needs some language corrections before being published | The revised manuscript has been proofed read by English Editor from Universiti Kebangsaan Malaysia during a Scientific Manuscript Writing Workshop. |

Reviewer 2: Alan Barclay

<table>
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</table>
| 1. | Move the methods section.  
On page 13, lines 4-5 a validated questionnaire is mentioned, but not referenced.  
Please include a valid reference. | The reference of the adapted questionnaire is included. |
| 2. | Page 13, line 5 describes the use of 3 day food records to determine individuals food and nutrient intakes. I would have thought a retrospective food frequency questionnaire would have been more appropriate as previous (rather than current) food/nutrient intake would be causing the acne. | We acknowledge that the retrospective food frequency questionnaire would be the most appropriate tool to determine the association between dietary intake such as dairy products and acne. |
Conversely, an individual may have changed their eating habits in line with popular beliefs to help manage their condition. I think these issues need to be discussed.

Repeated 3 day food records would have been a better method to calculate glycemic load and determine its association with acne. However, a 3 day food record was used in this study to measure the glycemic load due to limited study duration. This limitation has been included in the manuscript.

3. Page 13, line 15. Why were the 2002 Tables of GI values used (reference 15) rather than the more recent 2008 Tables (Atkinson et al. Diabetes Care. 2008)?

We would like to rectify that we used both tables as references as GI values of some food are not included in the latest table. The reference of the recent table have been included in the reference list.

4. Table 1, page 20. Please include results of any statistical analysis in the table results. Please indicate whether the income ranges included are weekly/monthly/yearly.

We appreciate the comments. The income ranges included are monthly. We have used Chi Square test.

5. Table 5, page 23. Please indicate in the title whether the data have been adjusted or not. If so, what for?

We would like to rectify that the data are not adjusted as indicated by “crude ORs” in the title.

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

The revised manuscript has been proofed read by English Editor from Universiti Kebangsaan Malaysia during a Scientific Manuscript Writing Workshop.