

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	A community based survey for different abnormal glucose metabolism among pregnant women in a random household study (SAUDI-DM).
AUTHORS	Al-Rubeaan, Khalid; Mana, Hamad; Khoja, Tawfik; Youssef, Amira; Al-Sharqawi, Ahmad; Siddiqui, Khalid; Ahmad, Najlaa

VERSION 1 - REVIEW

REVIEWER	Dr Eman Eltahlawy National Research Center Egypt
REVIEW RETURNED	04-Jul-2014

GENERAL COMMENTS	<p>Abstract</p> <p>Comment 1 Line 15 women childbearing age 594 should be correct to 15-49 while in the rest of paper author choose 18- 49</p> <p>Methodology</p> <p>Comment 2 Page 5 line 36 : aim needed to be clarified</p> <p>Comment 3 Page 6 line55 and page 7 line 3 : the author measure Cholesterol , HDL and LDL if they need special precautions as fasting for 12 hours is this done or not and need to be clarified</p> <p>Results</p> <p>Comment 4 Page 8 line 37 figure 2 : its better to divide this figure into 2 as it is loaded by data , it s needed that one for prevalence of diabetes in every age group ,Then another figurer for types only among every age group</p> <p>Comment 5 Page 9 line 16 figure 3: may be it better to use a logistic regression to help u to elaborate the most important risk factor in Saudi community</p> <p>Comment 6 Women not known to be diabetic and discovered that they have high FPG it is valuable to ask about which trimester they are and if they have antenatal care or not</p> <p>Comment 7 the author need to ask about antenatal care start or not , about duration of pregnancy in weeks , number of offspring , parity</p>
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	<p>level , investigations conducted during antenatal</p> <p>Discussion</p> <p>Comment 7 page 9 line 50 the author mention that 4,2% of GDM discovered by health system , reference needed</p> <p>List of abbreviations</p> <p>Page 14 needed to added in the list HDL , LDL ,BMI , OGTT,C.I , OR ,</p>
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REVIEWER	Keskin, H. Levent Department of Obstetrics and Gynecology, Atatürk Education and Research Hospital, Ankara, Turkey
REVIEW RETURNED	08-Jul-2014

GENERAL COMMENTS	<p>In the current cross-sectional study, the authors examined the prevalence and risk factors of gestational diabetes mellitus (GDM) in Saudi population using fasting plasma glucose levels according to International Association of Diabetes and Pregnancy Study Group criteria instead of ADA (American Diabetes Associations) or other society recommendations. Thanks to authors for their nice effort regarding the study, however I have some concerns and questions;</p> <p>Abstract</p> <p>Line 18; Please identify the 'known diabetes' types</p> <p>Line 31; 'macrocosmic' should be 'macrosomic'</p> <p>In the 'Results' section some outcomes were noted twice, and some of them could be combined, for example the statement which indicate the significant risk factors.</p> <p>Page 3</p> <p>Third item, I think this clause doesn't reflect the correct strength of the study since, the socioeconomic status or transition, except for monthly income and education of the population, haven't been mentioned in this study.</p> <p>Introduction</p> <p>Can you mention briefly about the advantages and disadvantages of the IADPSG diagnostic criteria and why did you choose their criteria? Although the fasting plasma glucose level was preferred as a new tool for GDM diagnose, it had been previously rejected as the authors noted in Discussion as the limitation of the current study.</p> <p>Methods</p> <p>The reproductive or childbearing age is identified as 15-49 years by WHO and Speroff. But in this study the participants were subjected from 18-49 years. I think, therefore the 'childbearing age' or 'reproductive age' statements have to be removed from the whole text including tables and figures.</p> <p>Please specify the country of the chemistry analyzer.</p> <p>Page 7 line 14: Please make the 'medicine' with capital letter 'Medicine'</p> <p>Results</p> <p>The p- values related to the 'Results' should be indicated at the end of the statements or comparisons.</p>
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	<p>After some results 'Table' should be referred in this section. Can you give the Units of Cholesterol values as well as 'mg', because in some countries 'mg' is more widely used than 'mmol' Please give also the pregnant women numbers and percentages for each age group. Page 9 line 16, please delete the words "...with the 95%CI for GDM using univariate analysis, ..." because it was also stated in the 'Material Methods' Please put the p-values in parentheses (page 9 line 21, line 23, line 28)</p> <p>Discussion None of the obstetrical or perinatal outcomes were investigated or mentioned in this study. In my opinion, this should be stated in the text as one of the limitations of this study. It may be discussed according to literature, in which the new IADPSG diagnostic criteria were used, in order to improve the obstetric and perinatal outcomes such as an increase in the GDM diagnose rate. Page 10 line 27, I think the word 'population' would be better instead of 'society'. Page 11 line 28-33; 'The ratio of the known...by other researches.' Is there any conflict within the sentences or not? I couldn't understand, can you explain? Similarly Page 11 line 55 – page 12 line 11; 'Hypertension, low...of diabetes in general population.' Is there also not any conflict between the sentences? In my opinion, Discussion may be enriched and rendered more meaningful by giving some ratios and rates from the literature, for example in page 11 parag. 3.</p> <p>Collaborators This part should be 'The authors would like to acknowledge the staff at the University Diabetes Center and the staff of the primary care centers from Ministry of Health for their collaboration in conducting to the study.'</p> <p>References Please don't forget to insert 'comma' or 'hyphen', which is proper, between the reference numbers in the whole text.</p> <p>Table 1 The number sign in line 7; 'N' should be in small letters 'n' Please give the units of the parameters e.g., for blood pressure 'mmHg' etc.</p> <p>Figure 1 In first text box, please remove 'child bearing age' In last text box 'Normal pregnant women' or better 'Participants with normal fasting plasma glucose level'</p> <p>Figure 3 This figure may be rearranged and also minimized. The p values should be indicated in the diagram and the table part of the figure should be removed.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer Name Dr Eman Eltahawy

Abstract

Comment 1 Line 15 women childbearing age 594 should be correct to 15-49 while in the rest of paper author choose 18- 49

Reply: Kindly note that 594 is the number of the participants and should not be confused with the word “age” since there is a comma separating the number.

Methodology

Comment 2 Page 5 line 36: aim needed to be clarified

Reply: The Aim of the study has been clarified as follows:

“The aim of the present study was to investigate the prevalence of different abnormal glucose conditions among pregnant women in the Kingdom of Saudi Arabia. The prevalence of GDM and its different risk factors were also investigated using the new IADPSG diagnostic criteria”.

Comment 3 Page 6 line55 and page 7 line 3 : the author measure Cholesterol , HDL and LDL if they need special precautions as fasting for 12 hours is this done or not and need to be clarified

Reply: The blood samples used for FPG were also used for Lipids assessment and in the METHOD section it was corrected to:

“Pregnant women who were not known to be suffering from diabetes were tested for FPG and Lipids profile after overnight fasting of at least 10 hours and three days of usual activity and diet”.

Results

Comment 4 Page 8 line 37 figure 2 : its better to divide this figure into 2 as it is loaded by data , it s needed that one for prevalence of diabetes in every age group ,Then another figurer for types only among every age group

Reply: Figure 2 is meant to show the prevalence of different abnormal glucose metabolism for each age group and looked into the difference between those groups using the p value. So we will lose the comparative analysis if this figure is splitted into two graphs. We are limited also with the total number of figures.

Comment 5 Page 9 line 16 figure 3: may be it better to use a logistic regression to help u to elaborate the most important risk factor in Saudi community

Reply: We have calculated the Odds Ration with 95% CI using univariate logistic regression analysis in figure 3 already, because we believe it is better when comparing with other international studies that have used mostly univariate logistic regression OR.

Comment 6 Women not known to be diabetic and discovered that they have high FPG it is valuable to ask about which trimester they are and if they have antenatal care or not and:

Comment 7 the author need to ask about antenatal care start or not , about duration of pregnancy in weeks , number of offspring , parity level , investigations conducted during antenatal

Reply: It has been mentioned at the end of our discussion that obstetrical history was not taken which is one of the limitation in this study.

Discussion

Comment 7 page 9 line 50 the author mention that 4,2% of GDM discovered by health system , reference needed

Reply: The value 4.2% is from our results as shown in Figure 2, so it does not need any reference.

List of abbreviations

Page 14 needed to added in the list HDL , LDL ,BMI , OGTT,C.I , OR ,

Reply: The suggested abbreviations have been added to the list.

Reviewer Name H. Levent Keskin, MD

Abstract

Line 18; Please identify the 'known diabetes' types

Reply: The whole Method section has been re-written to be:

"Method: A household random population based cross-sectional study of 13,627 women in the childbearing age, were subjected for fasting plasma glucose (FPG) if they were not known to be diagnosed with any type of diabetes before. GDM cases were diagnosed using the International Association of Diabetes and Pregnancy Study Group (IAPSG) criteria."

Line 31; 'macrocosmic' should be 'macrosomic'

Reply: The mistake has been corrected.

In the 'Results' section some outcomes were noted twice, and some of them could be combined, for example the statement which indicate the significant risk factors.

Reply: We have eliminated any outcomes which were noted twice but combining some of the outcomes may confuse the readers. So, I would suggest keeping them as it is.

Page 3

Third item, I think this clause doesn't reflect the correct strength of the study since, the socioeconomic status or transition, except for monthly income and education of the population, haven't been mentioned in this study.

Reply: Item three in the STRENGTH section was corrected to:

"The studied cohort is unique because of its swift socioeconomic transition observed in the Saudi society that gives a good setup to assess for different modifiable and non-modifiable risk factors for GDM and to compare this with other ethnicities".

Introduction

Can you mention briefly about the advantages and disadvantages of the IADPSG diagnostic criteria and why did you choose their criteria? Although the fasting plasma glucose level was preferred as a new tool for GDM diagnose, it had been previously rejected as the authors noted in Discussion as the limitation of the current study.

Reply: This comment was discussed in the DISCUSSION section and it could be seen as a repetition if mentioned in the introduction also.

Methods

The reproductive or childbearing age is identified as 15-49 years by WHO and Speroff. But in this study the participants were subjected from 18-49 years. I think, therefore the 'childbearing age' or 'reproductive age' statements have to be removed from the whole text including tables and figures.

Reply: Our age cut off for the study was from 18 to 49 which is within the defined child bearing age and it has been mentioned three times in our paper in which we always limited our cohort to the age between 18 to 49 which eliminates such confusion.

Please specify the country of the chemistry analyzer.

Reply: The chemistry analyzer used in this study was made in China. The information has been added to the manuscript.

Page 7 line 14: Please make the 'medicine' with capital letter 'Medicine'

Reply: It has been corrected as suggested by the reviewer.

Results

The p- values related to the 'Results' should be indicated at the end of the statements or comparisons.

Reply: All relevant p values have been added to the RESULTS section.

After some results 'Table' should be referred in this section.

Reply: There is only one table in the manuscript and reference to it has been added in the beginning of the RESULTS section.

Can you give the Units of Cholesterol values as well as 'mg', because in some countries 'mg' is more widely used than 'mmol'

Reply: We agree to the reviewer's suggestion but we are restricted by word limit and furthermore formulas and web-based calculators are available to convert the units.

Please give also the pregnant women numbers and percentages for each age group.

Reply: The required information has been added to the first paragraph of the RESULTS section as: "The studied cohort was divided into three age groups, the first group is between 18 to 29 years of age with a total number of 264 (48.1%). The second age group is between 30 to 39 years totalling to 212 (38.6%), while the third group is between 40 to 49 years with a total number of 73 (13.3%)".

Page 9 line 16, please delete the words "...with the 95%CI for GDM using univariate analysis, ..." because it was also stated in the 'Material Methods'

Reply: The phrase has been deleted as suggested.

Please put the p-values in parentheses (page 9 line 21, line 23, line 28)

Reply: p-values have been put in parentheses.

Discussion

None of the obstetrical or perinatal outcomes were investigated or mentioned in this study. In my opinion, this should be stated in the text as one of the limitations of this study. It may be discussed according to literature, in which the new IADPSG diagnostic criteria were used, in order to improve the obstetric and perinatal outcomes such as an increase in the GDM diagnose rate.

Reply: It has been mentioned at the end of our discussion that obstetrical history was not taken which is one of the limitation in this study.

Page 10 line 27, I think the word 'population' would be better instead of 'society'.

Reply: The suggested change has been made in the manuscript.

Page 11 line 28-33; 'The ratio of the known...by other researches.' Is there any conflict within the sentences or not? I couldn't understand, can you explain?

Reply: There is no conflict between our findings and other researchers because our observation showed that older women have better chance of being discovered by the health system most likely because they are more subjected for antenatal care as discussed in more details in the DISCUSSION section. To clarify this confusion we have added the word "previously known" that would hopefully make the sentence more clear.

Similarly Page 11 line 55 – page 12 line 11; 'Hypertension, low...of diabetes in general population.' Is there also not any conflict between the sentences?

Reply: We agree with the reviewer's comment that there is a conflict between the two sentences because the word "not" was missed and the sentence is now corrected as follows:

"Hypertension and low HDL increased the risk for developing GDM in this population but not to a significant level similar to the Caucasians"

In my opinion, Discussion may be enriched and rendered more meaningful by giving some ratios and rates from the literature, for example in page 11 parag. 3.

Reply: We have already compared our data using ratios and rates with other similar international data although our study is the only available community survey for GDM since all other studies are hospital based studies.

Collaborators

This part should be 'The authors would like to acknowledge the staff at the University Diabetes Center and the staff of the primary care centers from Ministry of Health for their collaboration in conducting to the study.'

Reply: The suggested change has been made in the manuscript.

References

Please don't forget to insert 'comma' or 'hyphen', which is proper, between the reference numbers in the whole text.

Reply: The suggested changes have been made in the manuscript and all references numbers in the text have been updated.

Table 1

The number sign in line 7; 'N' should be in small letters 'n'

Reply: The suggested change has been made in the Table.

Please give the units of the parameters e.g., for blood pressure 'mmHg' etc.

Reply: The suggested change has been made in the Table.

Figure 1

In first text box, please remove 'child bearing age'

Reply: The suggested change has been made in Figure 1.

In last text box 'Normal pregnant women' or better 'Participants with normal fasting plasma glucose level'

Reply: The suggested change has been made in Figure 1.

Figure 3

This figure may be rearranged and also minimized. The p values should be indicated in the diagram and the table part of the figure should be removed.

Reply: The suggested change has been made in Figure 3.

VERSION 2 – REVIEW

REVIEWER	Dr Eman Eltahlawy National Research Center Egypt
REVIEW RETURNED	26-Jul-2014

- The reviewer completed the checklist but made no further comments.