Reviewer's report

Title: Diabetes mellitus type 2 in urban Ghana: characteristics and associated factors

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Reviewer: REKIA BELAHSEN

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Comments

The manuscript entitled “Diabetes mellitus type 2 in urban Ghana: characteristics and associated factors” by Ina Danquah I et al., describes the clinical, anthropometric, socioeconomic, nutritional and behavioral parameters characteristics of Diabetes Mellitus type 2 (DM2) and its associated factors; in male and female Ghanaian adults. The authors concluded that DM2 was more prevalent in obese patients from low socio-economic status and that DM2 was associated frequently with hypertension and hyperlipidaemia.

The study is interesting as it is dealing with emerging health problems related to Nutrition transition in a large sample of 1466 participants.

Remarks to the Authors

• In the Methods section:
  Could the authors give the justification of tobacco abstinence for the number of hours before the examination day as mentioned in their experimental protocol (page 3, paragraph3)?

• In the Results section:

Major Comments

1- A major critic is about the variables age and sex and the results from the data analyses according to age and sex that should be considered.

In page8, 2nd paragraph & Table1:

I wonder if the authors could make more analyses concerning the interaction of the 2 variables that are age and sex in relationship with the associated factors:

Indeed it is already know that all the cardiovascular (CVD) risk factors increase with age, and this is also reported in this manuscript by the authors as shown in the Table 1.

Also, a difference of the prevalence of all these CVD risks in males and females was reported before;

However, the authors gave only the mean age of participants that was 54,7 years which include age for both sexes. They don’t give the mean of age for males.
Furthermore the age of diabetics and controls were different (54 vs 38 years respectively) and the authors compared all the reported variables between these groups.

I’m wondering if for all the variables studied, the differences of the results found between diabetic patients and controls were only related to the effect of age.

More deep statistical analyses could raise the determining factor.

2- How the authors could explain the higher energy expenditure associated with the higher obesity in diabetics than in controls?.

Minor Comments

• In the Discussion section:

Page14, 1st paragraph:

1- Could the authors give more information and clarify the 2nd sentence:
However, replication of risk alleles established in Caucasians not rarely has failed in African ……………[41].

Page14, 2nd paragraph, Line 5:

2- Could the authors give more information and clarify the sentence :
Clearly, more research into the traditional cognitive imagery is needed to…………

Thank you for the opportunity to review this interesting article. I hope the above comments will be taken in account to strengthen the manuscript prior to publication.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

'I declare that I have no competing interests'