Reviewers report

Title: Obesity is a Significant Risk Factor for Breast Cancer in Arab Women.

Version: 1 Date: 20 August 2014

Reviewer: Chelsea Catsburg

Reviewers report:

Major Compulsory Revisions

ABSTRACT

1. Methods – Indicate what controls were matched on. Indicate statistical analysis used – “e.g. (Unconditional?) logistic regression was used to obtain odds ratios…”

2. Results - The text seems to indicate that marriage was not an independent risk factor for breast cancer after adjustment for confounding variables, therefore do not need to mention this in abstract.

METHODS

3. Please provide information on how controls were chosen, eligibility and exclusion criteria, same for cases. Also include information on participation rates, exclusion rates for cases and controls, and if there were any differences between those who declined to participate.

4. Please include dates of recruitment period

5. How were cutoffs for categorical variables other than BMI chosen? Particularly age at menarche, age at menopause

6. What variables were tested for confounding for the multivariate regression – please indicate detailed info on variables used, cutoffs, categorical/continuous etc.

RESULTS

7. Unclear in Table 3 why some results are shown stratified by menopausal status and some are not, please show results for all.

8. Three groups of BMI (lean/overweight/obese) in Table 3 would be more informative than the two groups shown.

9. It seems that employment (ever/never worked) and education may be highly correlated? If so, this would be reason to not include these two variables in the same model as would skew estimates for either, what is the correlation between these two variables?

10. Footnote of Table 3 needs to be much more detailed, provide cutoffs for variables adjusted for and whether they are continuous, categorical etc.

DISCUSSION

11. Do the authors have any reason to explain why earlier age at menarche
would be a protective factor in this population?

12. Please describe limitations of this study – e.g. controls were not recruited at the same centre as controls, controls were selected from across the country, where as cases were from one institution only etc. and any other biases that may arise from the way controls and cases were recruited (once more information is provided on how this was achieved) – BMI was collected at one time point only, may have changed etc.

Minor Essential Revisions

13. Sentence on page 5 “Cross-tabulated and differences in participant’s characteristics…” is not clear and needs to be rewritten.

14. Page 6, sentence relating to family history beginning “Interestingly, higher proportion of cases…” – interestingly is not the correct word, as this is what we would expect to see, maybe try “As expected, higher proportion of cases…”

Discretionary Revisions

15. Do the authors have any information on parity? If so, may want to include and consider adjusting for.

16. Authors have great information on ER/PR/HER status and grade/stage of tumors – may be potential to analyze associations between different subgroups, i.e. is BMI more a risk factor for ER+ tumors etc.

17. Written English is good overall, but does have minor grammatical errors throughout, e.g., missing 'a' or 'the' - would benefit from editing

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