Reviewer's report

Title: Obesity and Male Breast Cancer: A Deadly Duo?

Version: 1 Date: 13 March 2015

Reviewer: David B. Thomas

Reviewer's report:

Major compulsory revisions

1. This paper is not well organized. There are a number of redundancies in the text. Examples of these are provided below in a consideration of individual paragraphs.

2. It is unclear how the paragraphs on treatment and survival relate to the evidence for obesity as a causal agent in MBC. Either these paragraphs should be omitted, or the text revised to clearly indicate the point relevant to etiology that the authors are trying to make.

Minor essential revisions

3. Introduction, para 1: The last sentence is not a complete sentence.

4. Review, para 1: What population was used in ref 14, and is it different than the SEER population used in ref 16? In the next sentence, it would be better to simply say that rates of breast cancer are higher in black than white men, but that they are lower in black than white women. The word “contradicts” isn’t quite right. What is the relevance for your consideration of etiology that breast cancers tend to be diagnosed at a more advanced stage in black men than white men?

5. Figures 1 and 2: These show, respectively, time trends in rates of breast cancer in men and women in the US. In the corresponding text, it should be noted that the increases over time (in whites—the rates for individual years in blacks are too unstable for meaningful interpretation of time trends) are similar for white men and women from 1975-2000. The leveling off of rates in women after 2000 is due, in part, to screening which would not affect male rates. Thus, whatever is causing the increase in rates is likely not sex-specific (e.g., it could be changes in diet, but not changes in child-bearing practices).


7. Review, para 5: The argument that changes in obesity seem to mirror changes in MBC rates is important. Are the two time trends correlated? In how many different populations? Also, if the increase in MBC rates is due to improvement in diagnosis, then this would negate your hypothesis that it is due to obesity. What is the evidence that the trend is not due to changes in diagnosis?

8. Fig 4: What population does this figure refer to?

9. Review, para 8: The first part of this paragraph deals with hormone levels in relation to obesity, and should be moved to a previous paragraph where this is
also discussed. As it is, this seems redundant. What do you mean by the “hormonal milieu can fluctuates annually”? Do you mean that there are downward trends in hormone levels in older men over time?

10. Review, para 9: How does the observation that poor survival of women with breast cancer is related to obesity relate to your hypothesis that obesity is a causal agent in MBC? I don’t follow your reasoning.

11. Review, para 10: This paragraph on the Brinton study belongs above with the rest of the evidence that risk of MBC is associated with obesity.

12. Review, para 11 and 12: These two paragraphs deal with treatment. It is not clear how what is presented relates to the topic of obesity as a cause of breast cancer. I suggest that either this be made clear, or that these 2 paragraphs be omitted.

**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