Reviewer's report

Title: Weight change during chemotherapy is a poor prognostic in early stage breast cancer

Version: 1 Date: 15 February 2010

Reviewer: Rebecca Cleveland

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MAJOR COMPULSORY REVISIONS

1. One of the major issues with this study is that they state that they are investigating early stage breast cancer, yet over 20% of their population has tumor stage T4 which is not a component of any early stage breast cancer (Stage 0, Stage IA, IB, Stage IIA, IIB, or Stage IIIA).

2. The introduction indicates that this study is being conducted in a group of women who received exclusively anthracycline-based chemotherapy, however they report that 5% of population did not receive this type of treatment.

3. How they took their weight measurements was not detailed enough and their analysis did not indicate an accounting for weight at the beginning of treatment which is a strong prognostic indicator on its own.

4. The use of the terms “weight variations” is misleading. It is suggested that the terms “weight gain” be used instead to be more precise.

5. How was WV calculated? It is indicated that measurements were taken at various time points during treatment. Was the WV calculated with the last measurement subtracted from baseline, or some combination of all the weight measurements taken during treatment?

6. Did you adjust for any covariates such as BMI or treatment? Both of these factors could affect survival and recurrence.

7. Also, there was no accounting for weight gain after treatment had ended. Since the follow-up time in this study was quite long (median 20.4 years), there is a long period of time unaccounted for after treatment where women could have gained quite a substantial amount of weight which could also affect prognostic outcomes.

8. Although there was a section in the Methods describing treatment, was no mention of adjustment for this, or other factors, in the analysis.

9. There needs to be section in the Discussion on how/why chemotherapy can cause weight gain.

MINOR ESSENTIAL REVISIONS

1. What is “early breast cancer”? Do you mean early-STAGE breast cancer or breast cancer at a young age?

2. Were the different treatment modalities accounted for in the analyses?
3. What is an “H” statistic? This needs to be explained better and using common terms. In general the Analysis section could use more specific details.

4. Page 7, sentence 2: Is this the reported median age at diagnosis, or at follow-up?

5. What is meant by hormonal status? Exogenous hormone use? Hormone receptor status? Menopausal status? This is the first time it is mentioned in the manuscript.

6. Were the different treatment modalities accounted for in the analyses?

DISCRETIONARY REVISIONS

1. The abstract needs to be reworked. The language is a little awkward, and since this is the first part of the manuscript people will see, it needs to be well-written.

2. Add a little more information about your study population (e.g., age at diagnosis)

3. Page 5, sentence 1: this sentence should begin “Deaths and recurrence” instead of “Results”.

4. In the “BMI and weight variation” section I believe the first sentence should read “The initial MEDIAN BMI was…..”

5. Page 8, sentence 3: Did you mean the OS was “dependent ON” or “INDEPENDENT of”?

6. Page 10, sentence 1 and 2: These sentences do nothing to prove your point. If 68% of your population maintained their weight, then the median weight gain will reflect that, showing no weight gain in your study.

7. Page 10, sentence 3: Suggested change: “Our findings of significant weight gain are in contrast….”.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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