Reviewer’s report

Title: Obesity and breast cancer survival in Japanese women

Version: 2 Date: 9 February 2012

Reviewer: Reiko Suzuki

Reviewer’s report:

Comments to Author

This prospective study investigates the impact of BMI on the risk for all-cause mortality as well as the risk for death of breast cancer in pre- and postmenopausal breast cancer patients. The study was conducted in newly diagnosed 653 pre and postmenopausal breast cancer patients at Miyagi Cancer Center Hospital. Anthropometric factors were assessed by self-reported questionnaires. Several earlier studies provide information on this specific association and they often produce conflicting results. Therefore, new additional investigations are needed. However, the investigation would benefit from a more clear description of study hypothesis in terms of biological mechanisms. There are also minor suggestions to change the text.

There are concerns as listed below:

Major Compulsory Revisions

1) The study hypothesis is not well stated. The biological background of the study is not well described in the “Introduction” section of the manuscript. Please make a link between Introduction and Discussion, shortly.

2) Abstract Last sentence (line 2-3): among premenopausal[ subjects] /…..among [subjects] with ER+PR+ tumors. However, on page 4 line 6, authors used the word [breast cancer patients]. Particularly this study was conducted based on Breast cancer PATIENTS. In abstract and all text, it is better to use unified expression (i.e. not use [subjects], but [breast cancer patients].

3) Results line 12
BMI had no significant effect on all cause of death...
It is better not use [effect]. This is cohort study, so [association or relation] should be used.

4) Discussion line 12(first line in second paragraph)
Our findings demonstrated that higher BMI was significantly associated with all cause death among premenopausal subjects.
I think it is better not to use the flowing words [finding] and [subjects] in this sentence. Finding maybe too strong expression with respect to this study size (i.e.. 653 patients).

5) Discussion (line4 in 6 paragraph) page 7
[Systematic bias] is not proper expression.
It is better to rewrite by using the following words [misclassification of exposure (or measurement error) due to self-reported..]

6) Discussion (line 7 in six paragraph) page 10
…..there was a possibility of beta error because of inadequate number of patients and event.
It is hard to understand this text. Please specify what is beta-error in this text.(i.e. specificity or sensitivity ).
Please explain with a more clear description.

7) Discussion (line 8 in six paragraph) page 10
Because of small size
Please exchange to [small study size].

Discretionary Revisions

8) Were the observed results not changed after adjusted for height?

**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'