Reviewer’s report

**Title:** An open cohort study for bone metastasis incidence after surgery in breast cancer patients

**Version:** 1  **Date:** 29 October 2009

**Reviewer:** Takahiro Hasebe

**Reviewer’s report:**

**General:**
Authors investigated factors significantly associated with bone metastasis by very plenty of patients with breast cancer. However, investigations performed by authors were based mainly on the Japanese (domestic) classification of breast cancer; since BMC cancer is the world-wide journal, the manuscript is suitable for Breast Cancer, which is the journal of the Japanese Breast Cancer Society. In addition, this reviewer thinks that authors roughly performed statistical analyses for bone metastasis in the manuscript.

**Major point:**

1. Authors investigated significant associations between several factors and bone metastasis. Among these factors, histology is the Japanese classification for breast cancers, especially for invasive ductal carcinoma. Papillotubular carcinoma in the manuscript consists of invasive ductal carcinomas showing papillary feature with tubular structure, invasive ductal carcinomas with a cribriform feature and invasive ductal carcinomas with a predominantly intraductal carcinoma component (IDCPIC). In addition, minimally invasive ductal carcinomas are also included in papillotubular carcinoma. Thus, it is natural that solid-tubular carcinoma or scirrhous carcinoma or other invasive cancers showed significantly higher frequencies of bone metastasis than papillotubular carcinoma. Since BMC cancer is a world-wide journal, histological grade by Bloom and Richardson should be used as histological classification for invasive ductal carcinoma in the manuscript, and IDCPIC or minimally invasive ductal carcinoma should be excluded from the group of papillotubular carcinoma. Furthermore, lymph vessel invasion and blood vessel invasion diagnosed by pathological examination should be included as factors for investigating bone metastasis in the manuscript.

2. Authors should perform analyses for bone metastasis according to the UICC pTNM classification or nodal status (node-negative vs. node-positive). For example, what factors are significantly associated with bone metastasis in the UICC pTNM stage I breast cancer patients. The same analyses should be performed for the UICC pTNM stage II patients or the UICC pTNM stage III patients.

**Minor points:**

2. Explanation about Table 1 is too detail. Many readers probably can understand what factors are significant when they see Table 1.

3. Discussion is needlessly long.

3. References. Many of references quoted in this manuscript by authors are old fashioned ones.

4. Quality of figures, especially figures 2, 4 and 5, used in the manuscript is not good.

**Level of interest:** An article of limited interest

**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'