Author's response to reviews

Title: A profile of prognostic and molecular factors in European and Maori breast cancer patients

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Author's response to reviews: see over
Dear Dr Rohrer-Bley

Resubmission: MS 9261575303789195: ‘A profile of prognostic and molecular factors in European and Māori breast cancer patients’

Thank you for the opportunity to submit a revised manuscript. We have addressed all points raised by the reviewers as outlined below.

All changes are indicated in red in the revised manuscript.

Please do not hesitate to contact me if there are any further queries.

Yours sincerely,

Gabi Dachs

Reviewer 1:

Major Compulsory Revisions:

1. The number of tumor and serum samples from a sub-cohort of this study was too small to clarify ethnic differences between Maori and European breast cancer patients.

We agree with the reviewer, and have changed the manuscript in accordance (Abstract p3, Results p12, Discussion p16). In addition, the Discussion was modified to emphasize the fact that, although only low numbers of Māori samples were studied, their accrual is an achievement due to cultural sensitivities with regards to donation of tissue, and they represent all available samples (Discussion p15).

2. Subtype classifications such as the intrinsic subtype may be useful to investigate racial disparity between the two different races (Carey L et al. JAMA. 2006;295(21):2492-502).
   Additional analysis on epidermal growth factor receptor status in breast cancer is needed to classify the tumor samples according to the immunohistochemical intrinsic subtype.

Description of intrinsic subtypes of the cohort has now been included (Results p11). Further discussion on intrinsic subtypes has been added to the Discussion (p14), with an additional 2 references. It is however important to remember that our study describes (potential) ethnic differences, not racial differences.
Discretionary Revisions:

1. Physical conditions such as the presence or absence of obesity might be different between the two races. These factors may influence the patient outcome, in particular, overall survival. The potential impact of obesity on high cancer mortality in Māori was mentioned in the Introduction (p5). However, anthropometric data of our patient cohort were not collected, and, importantly, analysis of the impact of obesity on Māori survival was not the aim of this study. It is also of note that although a strong link has been shown between obesity and risk of breast cancer, this is only significant in post-menopausal women. In addition, the association between obesity and cancer survival remains equivocal. Due to these arguments, and as this was part of Discretionary Revisions, we have chosen not to modify the manuscript with regards to obesity and breast cancer.

2. Treatment modalities such as surgical procedures and postoperative adjuvant therapies may influence the patient outcome. Information on the treatment modalities should be presented.

Information on treatment modalities has now been included (Methods p6).

Reviewer 2:

Major Compulsory Revisions: None

Minor Compulsory Revisions:

3: The women have been operated for breast cancer. Have they all been operated with a modified radical mastectomy with axillary lymph node dissection or have other surgical procedures been used? A statement to this point should be included in Methods (Breast cancer patients).

Information on treatment modalities has now been included (Methods p6).

4: In the first part of Results # Breast cancer patient cohort # the meaning of the last sentence is not clear: Median survival was not reached.

The sentence has been clarified (Results p12).

5: In the same part of Results Figure 1 is given in brackets. Should it be Figure 1 and Figure 2 in brackets?

It has now been clarified that Figure 1 consists of Fig1a and Fig1b (Results p12).

Discretionary Revisions:

1: Figure 2 shows the difference in disease-free days since surgery between Maori and European patients. After 500 days no more recurrences are seen in the Maori group, while the metastases continue to occur in the European group during the whole period. It would be of interest if the authors could comment on this seemingly increasing difference in risk.

A sentence describing this observation has been added (Results p12).

2: This manuscript has been submitted in the year 2010. The last follow-up was in December 2007. Is it possible to extend the follow-up period?

All patients were followed up until September 2009, which has now been clarified (Methods p6, Results p12).

Additional minor changes were made to the manuscript in order to clarify important points (p8, p15, p17).