Reviewer's report

Title: Molecular Genetics Analysis of Hereditary Breast and Ovarian Cancer Patients in India

Version: 1 Date: 2 June 2009

Reviewer: Annemarie Hedwig H van der Hout

Reviewer's report:

In this manuscript mutation analysis of BRCA1 and 2 and clinico-pathological characteristics of one of the largest groups of patients with familial breast/ovarian cancer in India is described.

Major Compulsory Revisions

1. The authors provide a lot of data about IHC analysis, clinico-pathological features and statistical analysis. These are presented in tables and figures. However, a discussion on the meaning of these data, is almost completely lacking. The discussion section should be considerately extended, or the manuscript should be rewritten as a survey of mutations in BRCA1 and -2 in Indian families with familial breast/ovarian cancer.

2. It is stated that all missense variations in table 2. are defined as polymorphisms in the BIC database. This is not true, some are not mentioned at all in the BIC database, others are mentioned with the comment that the clinical importance is unknown.

Minor essential revisions

1. Is the crude incidence rate of breast cancer in Chennai really as low as 30.1/100,000? Is there an explanation for the large difference with Western Europe, where the incidence is around 1/9?

2. what are the inclusion criteria?

3. nomenclature in table 1. is not according to HUGO recommendations as is stated on page 6. Ileu is Leu or Ile (case 14 and 15)? In the long notation on the protein level first affected residue should be mentioned, not the residue in which the first DNA change occurs. e.g. p.Ser2072SerfsX4 in case 11 can not be correct.

4. on page 9. it is stated that p.A392V being a pathogenic mutation can be confirmed by segregation analysis. This analysis, however, is not shown.

Level of interest: Reject as not of sufficient priority to merit publishing in this journal
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'