Reviewer's report

**Title:** The Prevalence of BRCA Mutations Among Young Women with Triple-Negative Breast Cancer

**Version:** 2 **Date:** 1 July 2008

**Reviewer:** Johanna Tommiska

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Young et al. have studied the frequencies of BRCA1 and BRCA2 mutations in young breast cancer patients with so called triple-negative tumors and with no family history of breast or ovarian cancer. BRCA1-associated breast carcinomas are typically triple-negative (negative for estrogen- and progesterone-receptors and no HER2 overexpression/amplification), and five BRCA1 mutations were found in 54 patients. The study is overall well conducted and, even though the sample size is small, the result indicates that women with early-onset triple-negative breast cancer may be candidates for BRCA1 testing even in the absence of family history.

**Minor Essential Revisions:**

When reading Experimental Design of the Abstract, it remains a little bit confusing what was screened and why. Even though it will become clearer later in the manuscript, the authors could clarify in the abstract that all coding exons and exon-intron boundaries of BRCA1 were screened, but only two major exons of BRCA2 (and why).

In the Introduction nothing is said about the association of BRCA1 mutations with higher grade of the tumor, even though in Materials and Methods it is said that grade III was one of the selection criteria of the patients. It should be explained why only patients with grade III tumors were considered eligible.

Is it known how the ER and PR status of the tumors was defined? Was it uniform in the different sources of the patients?

**Discretionary Revisions:**

It would perhaps be clearer if Table 1 would be expanded so that it would also include the ages and ethnicities of the mutation carriers etc. that are now scattered in the text.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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.