Reviewer's report

Title: Surgery Time Interval and Molecular Subtype May Influence Ki67 Change after Core Needle Biopsy in Breast Cancer Patients

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Reviewer: Dorthe Grabau

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Major Compulsory Revisions

1. The present work is largely a copy of a previous article (Chen et al. BMC Cancer 2013, 13:390) from the same group. A reference to the previous article is made to details of selection of patients and immunohistochemical procedures but some differences are not explained.

The hospital where the patients are treated and the enrolment period is exactly equal but the number of patients differ with 298 patients in Chen et al. BMC Cancer 2013, 13:390 and only 276 in the present work. The reason to exclude some patients is not commented.

The present study claims to use the 2013 StGallen guideline in defining molecular subtypes

2. Breast cancer molecular subtype classification second paragraph.

“Five breast cancer molecular subtypes were classified according to the 2013 St. Gallen breast cancer consensus (3): Luminal A (ER+/PR+/HER2–, Ki67<20%), Luminal B-HER2- (ER+/PR+/HER2-, Ki67#20% or ER+/PR-/HER2- or ER-/PR+/HER2-), Luminal B-HER2+ (HR+/HER2+), TN (HR-/HER2–) and HER2+ (HR-/HER2+).”

However the 2013 StGallen guideline use cut-off of 20% of PgR to distinguish between Luminal A and B in low-proliferative patients and the present study use 1% to define PR positive patients which means, even though claimed so, the study do not present StGallen 2013 subtypes.

The data presented in Table 1 also appears in tables in the article by Chen et al. BMC Cancer 2013, 13:390 except for the above mentioned change in the number of patients and inclusion of ER+/PR-/Ki67<20% in the Luminal B group instead of the Luminal A group.

The present study is expanded with time between core needle biopsy and surgery compared with the publication by Chen et al. BMC Cancer 2013, 13:390. However the mean time between core needle biopsy and surgery was 4.5 days with 55 patients receiving surgery 1-2 days after core needle biopsy, 115 patients receiving surgery within 3-4 days and 108 patients waiting more than 4 days. (The sum of the number of patients in the text is 278 and not 276, the table is
In the discussion is mentioned that the time between core needle biopsy and surgery is very short compared with routine procedure in most institutions but the authors do not explain why the interval is so short in their own institution. In everyday practice it will be impossible to have the results including immunohistochemistry and eventually FISH for HER2 of the core needle biopsies, decide the recommended treatment, inform the patient and get her acceptance of the treatment and plan and do the surgery within one day.

Results of time between core needle biopsy and surgery where only 39% have an interval of more than 4 days is not interesting or useful for routine practice in our part of the world. If readers miss the short time interval and extrapolate the results to their own patients, the conclusions might even be misleading.

3. However your results might be interesting for institutions using the same routine procedures as you do. So in order to get your results published a careful and meticulous description of your routine practice will be necessary. Also you must find the time between core needle biopsy and surgery for the missing 22 patients or at least explain why the patients are excluded. Consigning the StGallen subgroups you can either choose to use the 2011 data and refer to your article Chen et al. BMC Cancer 2013, 13:390 or you can re-score the PR receptor and use the 2013 subgroups.

Yours sincerely,
Dorthe Grabau

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