Reviewer’s report

Title: The assessment of angiogenesis and fibroblastic stromagenesis in hyperplastic and pre-invasive breast lesions

Version: 1 Date: 24 July 2007

Reviewer: Paul van Diest

Reviewer’s report:

General

This paper studies the changes of the neoplastic microenvironment during the different morphological alterations of hyperplastic and pre-invasive breast lesions. VEGF expression was strongly correlated with MVD. Stromagenesis was observed mostly around ducts harboring high grade and moderately differentiated DCIS. In DCIS, a positive correlation between MVD and SMA expression was observed. CD34 was inversely related to MVD (p<0.05). The following comments can be made.

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Major Compulsory Revisions

1. M&M: methodology of field selection for MVD assessment is unclear. It is stated that “In each case, 3-5 optical fields x200 were selected from the periphery of the lesion”. What is “lesion”? Many of the early lesions analyzed are probably small, but there is no information on that. Is the periphery of the “lesions” then maybe “some fields surrounding a gland”? Shouldn’t a rim where counts are done be defined?

2. M&M: “In each vessel, the outline was identified and traced”, the authors mean “interactively traced”? If counts are done, what’s the point in tracing?

3. M&M: “Fibroblastic reactivity for CD34 and a-SMA was recoded....”, same problem as point 5. Define area where this was exactly done!

4. M&M: “the positivity index for each staining was calculated as the ratio of specimens being strongly or intermediately stained over the sample population. The positivity index of each histological group was then correlated to the group’s mean MVD, using the Pearson r test.” This reviewer does not really understand this, but it seems to very odd methodology. Has any previous study used this approach? What’s the rationale?

5. M&M: while normal breast is used as reference, it is unclear how this was analyzed.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
6. Abstract: “Angiogenesis is observed before any significant fibroblastic stromagenesis in pre-invasive breast lesions”. It is unclear on which data this conclusion is based.
7. Abstract: “high grade in situ carcinoma” --> high grade DCIS
8. Abstract: extend --> extent
9. M&M: grading system for DCIS is not mentioned.
10. There is clearly more relevant literature than cited, e.g.:

What next?: Reject because scientifically unsound

Level of interest: An article of limited interest

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