Reviewer's report

Title: Morphometric analysis of the relationships between basal cell carcinoma and its peritumoral stroma.

Version: 2 Date: 10 November 2011

Reviewer: J Andrew Carlson

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Comments to Authors

1. Is the question posed by the authors well defined?

No. The objectives, design, and methods employed are vague, general, or not provided. Moreover, the above do not account for the current, specific knowledge of basal cell carcinoma, its progression, or its interaction with tumor stroma or the host immune response.

To wit, based on experimental (transplant studies), basal cell carcinoma (BCC) is stromal dependent and its growth is limited by host immune responses, as human to mice BCC transplants are only successful in T, B, and NK cell deficient mice (1, 2). These facts are supported by Kaur et al (3) findings. They presented evidence that a histologic continuum for BCC exists that moves from low risk BCC types (superficial and nodular) via less frequent transitional mixed types to more aggressive, high risk micronodular, infiltrative and morpheic types. In this scheme, the host immune response and stromal alterations accompanied the progression and were different in character (presence, composition, degree). Another factor to consider is the facts that BCC do not behave like conventional malignancies. Specifically, BCC rarely metastasize, fail to readily grow in culture, when transplanted, do not metastasize in nude mice or fail to grow at all in the host, and exhibit few characteristics of malignant cells such as DNA aneuploidy; thus, your discussion of findings of other carcinomas is likely not applicable to BCC. Considering these characteristics, BCC appears to represent a neoplasm midway between a reactive epithelial proliferation and a well-established malignancy with multiple genetic defects. Therefore, this paper must account for these data in its design, methods and analysis.

2. Are the methods appropriate and well described?

No. Ostensibly tumor and stroma diameters/radii are being measured on BCC typed as either superficial, nodular and infiltrative. The criteria that is used for these classifications is not given; no accounting for transitional (combined) BCC types tumors is made; and the character and make up of peritumoral stroma or host response to BCC are ignored.

For example, biopsy site changes can induce an infiltrative-like BCC pattern in proven nodular pattern BCC (4), which would confound results as its not
authentic infiltrative BCC. Or, wound healing is suspected to induce regression in biopsied BCC (5).

3. Are the data sound?

No, because the lack of and poor definitions of variables measured and samples studied. One really does not know exactly what the measurements taken represent.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

No. See above comments.

5. Are the discussion and conclusions well balanced and adequately supported by the data?

No. See above comments.

6. Are limitations of the work clearly stated?

NO.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

No, See comments below.

8. Do the title and abstract accurately convey what has been found?

NO.

9. Is the writing acceptable?

Yes.

References


5. Swetter SM, Boldrick JC, Pierre P, Wong P, Egbert BM. Effects of

**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.