Reviewer's report

Title: Quantitative analysis of the epithelial lining architecture in radicular cysts and odontogenic keratocysts.

Version: 1 Date: 30 November 2005

Reviewer: Dimiter Prodanov

Reviewer's report:

General
The question addressed by the article – whether it is possible to differentiate between different subtypes of keratocysts – can be important for the oral pathology and is defined in a quantitative objective manner. Methods are adequate for the study, although with some minor remarks. Data are sufficient for the purposes of the study. Manuscript is of acceptable quality in terms of language and structure. However, some improvements are recommended to improve readability. Discussion and conclusions are supported by the results. Abstract and title are adequate.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Materials and methods:
1. I would recommend giving more details on the methodological steps, now escaped in refs. 6,7, since not all of the readers will have full text access to the cited works articles. Introduction of a Figure may be particularly useful

Results:
2. Table 1: at least the standard deviations of the data should be included to give an impression on the variance of the data.

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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)

Intro
1. p.3 term “biological behavior” unclear
2. par. 3 improve readability for a wider audience

MM
3. p.4 par. 3 vendor of the Java language omitted
4. p.5 “V-cell” not introduced

Results
5. p.6 par. 1 – sentence not clear
6. p.6 par 4 not clear
7. Fig. 1 Recommend to the author to show a co-localization image between the original and the ‘tiled’ images to demonstrate better the fitness of the approach. Introduce labels.
8. Fig. 2 – notation ‘3 groups’ unclear, give more details into the legend

Discussion
9. p.7 1st sentence unclear
Discretionary Revisions (which the author can choose to ignore)

1. p.4 term ‘inter-pixel distance’ unusual; I would prefer ‘resolution’
2. p.8 term ‘living cells’ inappropriate for fixed tissue
3. Table 1: notation pixel2 inappropriate since a pixel is already an elementary square

**What next?:** Accept after minor essential revisions

**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