Reviewer’s report

Title: Expression and Significance of HMGB1, TLR4 and NF-κB p65 in Human Epidermal Tumors

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Reviewer: Chann Lagadec

Reviewer’s report:

I reviewed the manuscript by Weng et al. untitled “Expression and Significance of HMGB1, TLR4 and NF-κB p65 in human Epidermal tumors”. Authors analyzed mainly by immunostaining the expression and localization of HMGB1, TLR4, NF-κB and HSP70 on 96 patient samples of various grade of epidermal tumors, from normal to SCC. They then correlated the localization/level of expression of HMGB1 and κB p65 in epidermal cells, NF-κB in inflammation and epidermal cell, and TLR4 and p65 in epidermal cells in various type of skin deseases. While data could be useful, data are not really convincing (the way they are presented?).

Major concerns:

The figures presented are not convincing. The “representative” slides exhibited cannot really be useful for the reader, who has to trust graphs from the authors. The authors should present at least 2 magnifications for each slide.

Since the question is to study if diffuse HMGB1 and activation of NF-κB via TLR4, it would have been really interesting to perform a dual staining... or at least correlate diffuse HMGB1 and active p65 in ec... and not HMGB1 ec n and p65 ec n... since HMGB1 should be release in the extracellular component to activate TLR4. All cross correlation should have been done...

Again, correlation graphs are not convincing at all, but the figure 5a.

HSP70 staining is at the edge of the article, or at least not well incorporate. Level of HSP70 staining is not used for any correlation... these data are coming for free...

Authors speak about “significantly higher”, which means there is difference, and “numerically higher” which means not significant... this confuses the reader...

Minor comments:

Magnification of slide are different from figure to figure, and even in figure 4... this adds to the confusion

No scale

p value have to be real values and not <0.01 or <0.05

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