Reviewer’s report

Title: Galectin 3 expression in regional lymph nodes and lymph node metastases of oral squamous cell carcinomas

Version: 0 Date: 23 Mar 2018
Reviewer: Nadia Costa

Reviewer’s report:

The paper "Galectin 3 expression in regional lymph nodes and lymph node metastases of oral squamous cell carcinomas" evaluated Gal3 expression in regional lymph nodes, biopsy and tumor resection specimens in oscc patients and its association with histomorphologic parameters of the primary tumor and macrophage polarization. The authors showed that the high Gal3 expression in tumor-free regional lymph nodes was associated with increased tumor size. The epithelial compartment of lymph node metastases showed an increased Gal3 expression compared to biopsies and tumor resection specimens. Cell density of M2 macrophages was correlated with the number of Gal3 expressing cells in lymph nodes and tumor specimens.

I have the following suggestions and criticisms:

Consider revising the title so that it briefly highlights all the findings from the study.

ABSTRACT

1 - Revise the phrases "The progression of the primary tumor is associated with increased Gal3 which might mediate immunosuppression in regional lymph nodes in oscc. Gal3 in lymph node metastases could act as immune checkpoint and inhibit T-cell response" because the results do not support these affirmations.

INTRODUCTION

1- Some phrases need of citations.

2- Justify the reason for choosing the macrophage polarization biomarkers used in the study.

MATERIAL AND METHODS

1- The main problem of the study is the small sample size. The associations between the Gal-3 and the histomorphologic parameters would be favorable with a higher n.
2- It is not clear if the biopsy, tumor resection and cervical lymph nodes specimens are from the 34 patients with primary OSCC included in the study.

3- Why the authors analyzed the tumor resection and biopsy specimens? Biopsy specimens are not representative for this kind of analysis.

4- The authors did not detailed and referenced the histomorphologic parameters and the histologic grading used in the study. This compromised the results interpretation.

5- Describe the tissue used as positive control.

RESULTS

1- Describe the qualitative analysis of the immunohistochemical staining. The tumoral cells expressed the Gal-3 protein? The staining was nuclear or cytoplasmic?

3- The authors does not present the results about macrohpages polarization and the association with gal-3 in metastatic lymph nodes. Additionally, it is important to compare the gal-3 expression in the metastatic and non-metastatic lymph node.

4- For comparison of Gal3 protein in different specimens (biopsies, tumor resection and lymph node), the proportion (%) of Gal3+ cells to the total number of cells evaluations is better. Since they are different tissues with different microenvironment.

DISCUSSION

1- In the discussion the authors are speculating a little to much and wide considering their results.

FIGURE LEGEND AND FIGURES

1- Insert the scale bars represented in all histological figures.

2- The figures are poor and they do not represent the study.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?  
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
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