Reviewer's report

Title: Cytokine and Immunoglobulin Production by PWM-stimulated Peripheral and Tumor-Infiltrating Lymphocytes of Undifferentiated Nasopharyngeal Carcinoma (NPC) Patients

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Reviewer: Gerald Niedobitek

Reviewer's report:

General
This is an interesting paper describing differences in cytokine secretion between tumour-infiltrating lymphocytes and peripheral blood lymphocytes from patients with nasopharyngeal carcinoma as well as from normal donors.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. The description of the lymphocyte preparations is very brief. Clearly, this is an important point and should therefore be described in more detail.
2. It is important to know the composition of the lymphocyte populations obtained from blood and biopsy samples. I would not expect that the proportions of, e.g., B- and T-cells, are the same. Clearly, this could affect the results.
3. The authors used PWM for lymphocyte stimulation and specifically refer to the stimulation of B-cells. PWM may also affect T-cells but classical T-cell mitogens are PHA and ConA. Since I would expect T-cells to be major contributors to cytokine production, this is an important point and should be addressed by the authors. Ideally, the cytokine expression in response to a T-cell mitogen should also be studied.
4. The references quoted and discussed are not entirely up-to-date. The possibility that the increase of IL-10 in TIL is due to regulatory T-cells and the possible role of LMP1 in inducing regulatory T-cells is not discussed.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
1. Reference 20 (Lassoued et al) does not appear to be in Pubmed and should be omitted.
2. Serological data for the NPC patients and the healthy controls should be included.
3. It is not clear, how many NPC biopsy samples were included and if the PBLs were from the same patients. This should be clarified.
4. The authors determined the optimum concentration of PWM for B-cell stimulation. Since it is not clear what stock solution was used, it is unsatisfactory to give dilution figures (1:100 etc). This is not reproducible for others.
5. The question if NPC tumour cells can express IL-10 is controversial. Beck et al. (Ref. 26) have specifically reported that NPC tumour cells do not express IL-10 as detected by RNA in situ hybridisation, and this paper should be quoted accordingly.

Discretionary Revisions (which the author can choose to ignore)
1. p. 4: EBNA3 is not at all expressed in NPC tumour cells. The statement "is not usually expressed" is too ambiguous.
What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory 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

Declaration of competing interests:
None