Reviewer's report

Title: The enhanced expression of the matrix metalloproteinase 9 in nasal NK/T-cell lymphoma

Version: 1 Date: 4 July 2007

Reviewer: Irene Lorand-Metze

Reviewer's report:

General

This subject is interesting and actual. Several recent papers in the literature discuss the importance of angiogenesis and stromal changes in the spread and evolution of lymphomas. Only few of them deal with T-cell derived lymphomas, although these factors seem of greater importance in T than in B-cell lymphomas. Therefore, the subject is relevant.

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

although introduction and presentation of the clinical data as well as the immunohistochemistry and in situ hybridization is correctly written, survival data and statistical analysis (including some parts of the study design) are barely described:

How was “distant involvement-free survival” defined? How often were the patients restaged after treatment? Which procedures were performed (imaging, endoscopy, biopsy)?

As it is a retrospective study, for how many patients were survival data available? For how many was there histological material to perform P-glycoprotein and MMP-9?

Concerning Figures 4 and 5: were B and T-cell lymphomas joined together? This must be clearly stated in the text or legend of the figure.

This analysis should be done separately for T and B lymphomas, as each of them could have a different biological behavior.

Even if not statistically significant, the p values should be put in the survival curves. It seems that, for Fig 5 the p value should be significant.

Discussion:

Some major points are not discussed clearly:

Which are the known features related to a poor outcome in lymphomas: cell of origin, responsiveness to chemotherapy? Which are the known molecular mechanisms of chemoresistance?
Is radiotherapy alone the treatment of choice for nasal NK/T lymphomas? Is combined treatment the gold standard today? Why? In this setting, which is the role of MMP-9? P-glycoprotein may be a factor for chemoresistance, but is MMP-9 also responsible for chemoresistance or only a factor that facilitates dissemination of the tumor? May this be overcome if every patient receives chemotherapy?

In this sense, the third paragraph of the introduction should also be revised.

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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)

Figure 4: the survival plateau is reached with 70% of the patients alive. Are they the same as in Fig. 2?

Survival curves: for clearness, the p values should be put in the survival curves even if not statistically significant.

PLEASE CHECK ALL THE STATISTICAL RESULTS

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests