Reviewer's report

Title: Prognostic impact of tumor infiltrating CD8+ T cells in association with cell proliferation in ovarian cancer patients - A study of the OVCAD consortium

Version: 1 Date: 22 April 2013

Reviewer: Hans Nijman

Reviewer's report:

The authors have studied the prognostic impact of CD8+ T cells in ovarian cancer in association with cell proliferation in ovarian cancer. The did so by studying tumor tissue from 203 ovarian cancer patients. The performed IHC on TMA and RT-qPCR on the same material. Main findings are (i) CD8+ T cells are positively correlated to overall survival, (ii) Ki67 negative tumors have a reduced overall survival, (iii) no relation between CD8+ infiltration of tumors and Ki67 expression.

Comments

The authors could have described more clear why the combination of a proliferation marker (Ki67) and infiltrating T cells is of interest to be studied. The hypothesis is not clear.

Finally 203 tumors were tested. This seems a low number of patients knowing the number and size of the clinics involved in this study. How unbiased is this cohort?

The construction of the TMA should be described within the Methods section

Why was chosen for two cores of 1.0 mm?? How representative are these cores for the whole tumor?

Was the tumor material all from primary surgery before chemotherapy? So no interval surgery or tumor from recurrent disease?

How well is the automatic counting of CD8 cells validated?

What exactly is meant by “false positive cell cointing was avoided by a specific gate for cell size and CD8 intensity staining”

For qPCR the authors used homogenized whole tumor. Was this material from the same tumor spot as used for TMA construction? As mentioned by the authors in the discussion part, it could be envisioned that whole tumor encompasses stroma tissue as well, therefore not reflecting tumor tissue only. Why was chosen to persue with this approach?

For IHC the mean value of the two cores was calculated. What was the variation between two cores?
The authors compared optimally debulked patients with those who had remaining residual disease for CD8 infiltration. What was the hypothesis behind this? The results are shown in a Kaplan Meier curve. How comparable are the two patient groups? Is the difference for CD8 infiltration tested in a multivariate analysis?

Figure 3 can be skipped.

**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'