Reviewer's report

Title: HER2 overexpression and amplification is present in a subset of ovarian mucinous carcinomas and can be targeted with trastuzumab therapy

Version: 1 Date: 10 May 2009

Reviewer: Adelaida Garcia-Velasco

Reviewer's report:

1. Objectives:
   - The question posed by the authors is well defined.

2. Methods:

   Major Compulsory Revisions:
   - Statistical analysis is not properly described. The tables and numbers of your analysis are not shown. What kind of data base and statistical program did you use? Did you do a cross tab with Chi-square analyses to assess the association between HER2 amplification and prognosis? Did you try a survival analysis using time to recurrence as a target? Did you analyze the prognostic impact of established prognostic factors as FIGO stage, type of upfront surgery or performance status at diagnosis? None of these data is described in the article and in my opinion they are essential for the reader in order to fully evaluate the prognostic implication (or not) of HER2 amplification.

   Minor essential revisions:
   - You should describe if you had central pathology revision and if the immunohistochemistry was reviewed by one, two, or three pathologists.
   - The two cases described, are included in the case series with full HER2 analyses? It is not stated clearly. You should clarify it on the "case selection" paragraph and on Table 1 (results).

3. Results

   Major compulsory Revisions:
   - Clinical data of the series is not described neither in the text nor at the presented table. This information is essential to evaluate the prognostic analysis.
   - The comparison of the HER2 expression or amplification in order to determine if it has "changed from the time of initial presentation to recurrence" stated as one of the objectives of the study is not described (or not done?) in the two cases treated with trastuzumab prospectively.

   - The statistical analysis is not shown.
Are the data sound? Discretionary revisions.

You do have a good number of patients, all of them with a subtype of ovarian cancer that has scarcely been studied in this setting as a different entity from epithelial ovarian cancer. But, I think you can take more interesting results of this series if complete the analysis with data of clinical prognostic factors, and maybe you should wait and do the prognostic analysis with a greater number of events (recurrences).

4. The manuscript adhere to the relevant standards for reporting and data deposition.

5. The discussion and conclusions well balanced and adequately supported by the data.

6. The limitations of the work are not clearly stated: Discretionary revisions.

You do not describe if the clinical data of the patients are not fully shown because you don't have access to them or for other reasons.

7. The writing: the article needs some language corrections before being published. you should carefully revise the description of the cases.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests