Reviewer's report

Title: Human Papillomavirus (HPV) in breast tumors: prevalence in a group of Mexican patients.

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Reviewer: Patricia de Cremoux

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The paper presented by Cantu de Léon et al. entitled « Human papillomavirus in breast tumours : prevalence in a group of Mexican patients». This work is not new, but add information’s on the prevalence of HPV in breast tumours in a population different from those previously published. However, questions rose from this paper and major revisions have to be done, mainly concerning the methods and discussions of the results:

1- On a methodological point of view, authors used nested PCR to identify HPV DNA sequences in some of their samples. This is not a classical tool to identify HPV infections in cervical neoplasia, and this has to be described in more details and to be justified. The experience of the group in cervical neoplasia with this method could also be briefly reported in the discussion to be compared with other groups that have been largely reported. This method introduced a possible bias in the sensitivity of the detection and also may generate a high risk of contamination from samples to sample. This has also to be discussed, because the signification is not clear. Are they cross analysis of some samples with nested PCR and Inno Lipa tool? This has also to be describes and discuss in details. The figure is not acceptable in the present form.

2- A lot of positive but also negative data has been published on this subject and have to be more exhaustively cited and largely discussed. Particularly, the heterogeneity of HPV found in different papers (a lot are not reported) has to be discussed in a technical and epidemiological point of view

3/ Grading is not international SBR grade.

4/ Hypothesis to explain the results found by the authors are not really discussed and has to be done.