Reviewer's report

Title: Testing of human papillomavirus in lung cancer and non-tumor lung tissue

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Reviewer: Aleksandar D Kostic

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This study examines the prevalence of human papillomavirus in 100 cases of lung cancer from Italy and the UK. The investigators use an HPV microarray-based detection approach on DNA isolated from tumor and adjacent normal fresh-frozen lung tissue and find that all tissues tested were negative for HPV.

This finding is in agreement with a number of studies that have failed to find HPV in lung cancer tissues, but is inconsistent with yet other studies that have found such an association, including at least two studies that looked at Italian cohorts (Guiliani et al., 2007, PMID: 17400331; Ciotti et al., 2006, PMID: 16786144). Due to the considerable number of conflicting reports published on this topic, a high level of technical rigor is required of new studies that intend to contribute to this question.

For this reason I suggest the following revisions:

Major Compulsory Revisions

(1) The quality of DNA isolated from the samples is not discussed. Please provide a table that details the DNA yield and purity (260/280 absorbance ratio) from each sample.

(2) This study lacks proper biological positive controls; this is essential for reporting a negative result. Ideally this would be human tissue with a known HPV infection, but at the very least an HPV-infected cell line such as HeLa cells should be processed alongside the lung tissues.

Discretionary Revisions

(3) As a recommendation for an additional figure, it would be helpful to show the original DNA gels of the CFTR internal PCR control to verify the DNA quality from each sample and the success of the PCR.

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