Reviewer's report

Title: Gastric cancers of Western European and African patients show different patterns of genomic instability

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Reviewer: Jiro Watari

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The manuscript by Buffart et al analyzes different molecular pathways of gastric carcinogenesis among UK, native and Caucasian South Africa patients. The main concept and results of this study appear of interest. However, the objective evaluation of the results is lack and some of the statements of the authors are not well substantiated by the results presented. This makes a serious evaluation very problematic. Some additional revisions are required for a proper evaluation of the impact of the manuscript. The following points should be addressed.

Comments;
1. How did the authors obtain gastric cancers from those counties? As selected samples seem to vary in T stage and histological diagnosis, leading a selection bias. The incidence of mixed or diffuse type cancers showed higher in UK patients than that in Caucasian and native SA patients. Commonly, MSI is considered to be associated with intestinal type gastric cancer. The differences of T stage, histology, age and tumor size may affect their results.

2. The authors compared DNA copy number changes in only MSS cancers among the three groups. There were significant differences in the number of event and lost clones between UK and Caucasian/Native SA patients (p=0.04, respectively). The shift of a few incidences in small populations would have resulted in a loss of statistical significance, thus those comments obtained by the authors are questionable. Also, how about the patients with MSI?

3. In the Discussion section (pages 10-11), although the aberrations of gains on some chromosomes are described, those results are not shown in the Results section.

4. In 2nd para of page 11, the authors said that the result on cluster analysis was similar between native and Caucasian SA, indicating that cluster membership is independent of age in this respect. However, I cannot find those results in the text. The discussion should be described based on the results obtained.

5. Since tables 4 and 5 are complicated, there is difficulty in viewing and understanding them. The authors should edit them more easily comprehensible.

Level of interest: An article of limited interest

Quality of written English: Acceptable
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.