Reviewer’s report

Title: Mutations in epidermal growth factor receptor and K-ras in Chinese patients with colorectal cancer

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Reviewer: fahd al-mulla

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The paper by Cao et al. entitled “Mutations in epidermal growth factor and K-ras in Chinese patients with colorectal cancer”, describes the frequencies and types of EGFR and Ki-ras mutations in colorectal cancer of Chinese patients. The authors studied 101 cases of CRC cases from China and reported 2% with EGFR mutations in exons 18 and/or 21 and 32.7% with Ki-ras mutations. The authors also reported novel mutations in codons 45, 69 and 80 of the Ki-ras gene in their population. The authors found no overall survival benefit in cancers with or without Ki-ras mutation in the Chinese cohort. However, a borderline significance between Ki-ras mutation an poor differentiation was illuminated using logistic regression model.

The paper is timely as there are scanty information pertaining to EGFR and Ki-ras in Chinese CRC patients. However, this reviewer sees much room for improvement.

1. The authors need to clarify the selection process of patients. Do these patients from Fudan Hospital represent the Chinese population? How were they selected? There seem to be a bias towards stage IV cases, which accounted for 24.8% of cases. This needs to be clarified.

2. The authors stated that 8-10um sections were carefully dissected. What does this mean? Were the sections microdissected?

3. The cycling conditions of the PCR need to be adjusted for EGFR and Ki-ras. Were they both the same? For external and internal primers?

4. The authors do not account or comment much on the lack of codon 61 of Ki-ras gene in their population.

5. The authors did not expand much on the novel mutations they discovered. Are the mutations in codons 45, 69 and 80 synonymous or unsynonymous mutations? The authors made bold statements about these novel mutations in the discussion regarding biological behavior and drug resistance, yet they did not expand on their translational relevance?

6. The discussion magnified the role of antibody therapy. However, we were not informed how these patients were treated?

7. The manuscript needs serious English editing. There are numerous grammatical and spelling errors that need to be addressed.
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**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'