Reviewer’s report

Title: Metastatic colorectal cancer and severe hypocalcemia following irinotecan administration in a patient with X-linked agammaglobulinemia: a case report

Version: 0 Date: 14 Jan 2019

Reviewer: Amit Rawat

Reviewer's report:

The authors describe a patient with X-linked agammaglobulinemia who developed colorectal cancer and suffered from hypocalcemia following irinotecan administration. I have the following comments about the manuscript.

1. In the abstract section, the authors mention that

These mutations could disturb B-cell development, decrease immunoglobulin levels, increase susceptibility to infections or neoplasms, and increase the risk of developing colorectal cancer (CRC).

BTK gene mutations impair B cell development with a block of maturation in Pre B cell stage. Please remove could from "could disturb". An increased risk of developing CRC is not a usual manifestation in XLA although it has been reported in some patients. Please modify to Occasional cases of CRC have been reported in XLA pts. The readers should NOT get an incorrect message that CRC is a usual manifestation of XLA, which is NOT correct.

For XLA patients with CRC, because of the low levels of B lymphocytes and immunoglobulins, they are more prone to exogenous stimuli, which results in severe drug-related toxicity (DRT)

There is no evidence to suggest that patients with XLA develop drug-related toxicity as they are exposed to exogenous stimuli. This is again mentioned in the background section. Omit at both places.

Whole exome sequencing at line 34 pg 6 has incorrectly been mentioned as "whole exon" sequencing. Please correct.

The authors have suggested that mutations in the complement 6 gene may predispose to CRC through TGFβ1. Please elaborate and clarify. One of the references cited in support of this statement is regarding an increased susceptibility to dextran induced colitis and NOT CRC.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes
Does the work include the necessary controls?  
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?  
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English  
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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