Reviewer's report

Title: Circulating lymphocyte is an important determinant of the effectiveness of preoperative radiotherapy in advanced rectal cancer

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Reviewer: SANJEEV BANERJEE

Reviewer's report:

The Ms by Kitayama et al., entitled "Circulating lymphocyte is an important determinant of the effectiveness of preoperative radiotherapy in advanced rectal cancer" describes clinical response to radiotherapy in locally advanced colorectal cancer based on evaluation of the relationships between circulating blood cell counts and RT effects to come to derive a prognostic value alongwith clinico pathological features. Their findings reveal the ratio of lymphocytes in WBC taken before RT was significantly greater in 15 CR cases as compared with those in non-CR cases. Patients with high lymphocyte percentages (25.7%) showed better outcome than the counterparts. Conversely, the ratio of neutrophiles was reduced in CR cases. The lymphocyte ratio showed an independent association with CR with multivariate analysis, and tended to be maintained at relatively high levels in CR cases. On basis of their findings they concluded that in RC patients, peripheral blood lymphocytes have a significant impact on the CR rate in response to RT implying the possibility that lymphocyte-mediated immune reactions are necessary for achieving complete eradication of tumor cells and that enhancement of immune function during RT may improve the effectiveness of RT for advanced RC.

As a reviewer, I recommend acceptance of this Ms subject to some minor corrections as indicated below.

Under Introduction the authors should correct EGFR as Epidermal Growth Factor Receptor and not as Endothelial Growth Factor Receptor.

Likewise, VEGF should also be corrected omitting the word 'cell'

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:

Myself, Dr.Sanjeev Banerjee declare that I have no competing interests in reviewing this Ms.