Reviewer's report

Title: CD133 expression is not an independent prognostic factor in stage II and III colorectal cancer but may predict the better outcome in patients with adjuvant therapy

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Reviewer: Eva Rajnavolgyi

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The goal of the study was to re-evaluate the prognostic value of Prominin-1 (CD133) implicated as a cancer stem marker expressed by multiple cancer types among them CRC. The question addressed and the approaches they used are highly relevant.

1) The authors found a higher incidence of CD133 expression than previously reported.

2) This could be attributed to a more careful evaluation of CD133 IHC staining performed on individually-mounted whole-block tissue slides by using fully automated procedures and by defining the distribution patterns (cytoplasmic vs. membranous) of CD133 IHC staining.

3) Concordant with results obtained previously from colon cancer cell lines an inverse correlation between CD133 expression and promoter methylation levels was found.

5) CD133 expression monitored by IHC was associated with a better prognosis in stage II and III CRC patients receiving adjuvant therapy, but was not considered as an independent prognostic factor.

The strength of the study is the relatively high number of tested patients, the thorough and standardized monitoring of CD133 expression and the careful interpretation of the results. The possibility that promoter methylation is involved in the regulation of CD133 expression is a novel and intriguing idea and warrants further studies, which may shed light on the possible functional role of this stem marker in tumors.

Level of interest: An article of importance in its field

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