Reviewer's report

Title: Expression of endosialin is associated with the progression and with the more aggressive biological characters of rectal cancers with a clinical trial of preoperative radiotherapy

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Reviewer: Carolyn Staton

Reviewer's report:

The authors present an interesting study on the effects of radiotherapy on the expression of endosialin in both the normal mucosa and in rectal tumours. This is a follow up study from others previously published by this group with the same cohort of patients and data presented are correlated with those from previous studies. In general the paper is very well written and presents some interesting new findings.

Major compulsory revisions:

1. There is very clear vascular endosialin staining seen which, from the few photographs presented appears to be stronger in normal mucosa than in the stroma associated with the tumours. It would greatly add to the paper to quantify this vascular staining and relate it to tumour progression and radiotherapy treatment. This could be presented as an additional panel in Figure 3.

2. In Table 3 why are the tumours grouped according to Dukes A and then Dukes B, C & D? It would be better to use an alternative statistical method (e.g. Kruskall-Wallis) to see if there is a true relationship between endosialin expression with increasing severity of tumour by assessing each Dukes stage as a separate group.

3. The discussion is largely a re-iteration of the results section and should be much more tightly focussed on the relevance of the findings to other factors, the relationships between them etc. It was a little unclear as to the interpretation of your results and this needs to be clarified.

Minor essential revisions:

1. When describing the association with Cox-2 etc it was unclear what the values in brackets were (e.g. 44% vs 73%). It would be better to simply put the p value in brackets and refer to the table where this is much clearer.

Discretionary revisions:

1. It was stated that there were only a few positive tumour cells in entire slides in many cases. If that is the case an additional data set measuring the percentage of tumour cells expressing endosialin within a tumour section may generate more meaningful data and add to that already presented.
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 I have no competing interests