Reviewer’s report

Title: The expression of MDM2 in gastrointestinal stromal tumors: immunohistochemical analysis of 35 cases.

Version: 0 Date: 09 Jun 2017

Reviewer: Robert Schmidt

Reviewer's report:

This manuscript explores associations between MDM2 positivity and various clinicopathologic correlates in GIST tumors. The manuscript is well-written; however, there are some statistical issues that should be addressed.

1. The major problem with the manuscript is that it is unclear what hypothesis is being tested. The authors conduct 16 different chi-square tests to investigate many different possible associations with MDM2. This creates a risk of spurious findings. Many of the tested associations are not connected to MDM2. For example, in table 2, only one row is a test related to MDM2. The authors should either test one or two well-formulated hypotheses, reduce the number of incidental tests, or use a statistical adjustment procedure to control for Type I error. I recommend cutting down on the number of statistical tests to focus on associations with MDM2. Further, I would limit the tests for associations with MDM2 to a few clinically important associations (e.g. risk score, metastasis).

2. The title does not represent the content of the paper. This is not a prognostic study because there is no outcome data. You can infer that MDM2 is associated with a poor prognosis but there is no data showing this directly. To do this, you would need to perform survival analysis and show that MDM2 is an independent prognostic factor in addition to metastases, mitoses, etc.

3. In table 2, I believe the Cochrane-Armitage test for trend would be a stronger test than the chi-square test. I suspect you may be able to show a statistically significant association between MDM2 and AFIP risk if you use this stronger test.

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.

No

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.

I am able to assess the statistics

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

Acceptable

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