Reviewer’s report

Title: Survival of patients receiving systematic therapy for metachronous or synchronous metastatic renal cell carcinoma: a retrospective analysis

Version: 2 Date: 05 Sep 2018

Reviewer: Jeanette Eckel-Passow

Reviewer's report:

Summary

While there is still concern with the retrospective nature of the design and no propensity adjustment, only a few additional clarification comments remain, as listed below.

Comments

* It would be informative to include a supplementary figure that shows how many patients were identified and then subsequently excluded due to each of the listed exclusion criteria.

* When calculating, comparing, and discussing follow-up duration, data should only be utilized for patients who have not had an event. Importantly, two endpoints are discussed in the paper: PFS and CSS. Thus, follow-up time will be endpoint specific. When discussing follow up duration throughout the manuscript, please specify whether it is respect to CSS or PFS. Additionally, while the methods have been revised, it is still not clear whether patients who died of cancer were included in the calculations. In the tables, it is similarly not clear exactly what follow up duration refers to since both PFS and CSS are described.

* Tables 1-2: It is unclear what "survival and death due to non-cancer" means. Death due to non-cancer is not an event in CSS. The cancer specific survival status can be removed; or, simply state how many died due to cancer. The rest of the patients should be described by how much follow up information is available.

* Table 3: It is interesting that metastatic type has p=0.0006 in univariate analysis but is not significant in multivariable analysis. Was this evaluated further to determine why? Is it correlated with another variable in the multivariable model?

* The Discussion section mentions OS a couple of times; however, OS was not evaluated. Please edit.

* The Discussion sections makes comments regarding analyses that were not significant, please edit appropriately. For example, "…the latter showed similar or better CSS…” Equivalence
analyses were not performed and thus similar cannot be concluded. Similarly, if the analysis did not show a significant difference, "better" cannot be concluded either. As another example, "One interesting finding was that IT tended to improve PFS and CSS rates in poor risk patients in both the SM and MM groups, but not significantly". What does this mean? Please edit all such remarks to reflect the observed results.

* The Discussion sections states that a limitation is short follow-up periods; however, all but 14% of the patients died. Thus, there appears to be plenty of follow up. What are the authors trying to imply?

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.

I am able to assess the statistics

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