Reviewer’s report

Title: Prognosis and risk factors of patients with upper urinary tract urothelial carcinoma and postoperative recurrence of bladder cancer in central China

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Reviewer: Rebecca O'Malley

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Review of:

Prognosis and risk factors of patients with upper urinary tract urothelial carcinoma and postoperative recurrence of bladder cancer in central China

The authors query a retrospective database of patients surgically treated with radical nephroureterectomy for upper tract urothelial carcinoma (UTUC) in order to determine the overall survival (OS) and bladder cancer (BC) recurrence as well as risk factors for each in central China. The analysis includes 439 patients. There are unfortunately several issues with both the methodology and the presentation of the results. The conclusions drawn are also not clearly supported by the included data. Please see my comments below to this effect.

* Beginning around line 41 of the background section what is listed is should be in the methods section not the background. Should rather have a statement of hypothesis here. The last line "Our findings will provide a scientific basis for the effective prevention and treatment of UTUCs." Is much too strong a conclusion and not part of the background. Again should be just the hypothesis i.e. in order to investigate risk factors and prognosis of UTUC in central China we developed a database…etc.

* Authors state in section 2.1 that "All patients had complete clinical and follow-up data". Seems unlikely with > 400 patients.

* In section 2.3 states "Overall survival time was monitored by telephone." This requires clarification—were family members asked or physicians? How was cause of death determined?

* Last 2 lines of section 2.3 are describing the outcomes of interest not the "Follow-up" as the section is named. There should be a separate section describing the outcomes of interest (including how they were determined as above comment about OS) and what factors were examined specifically as risk factors for which outcome.
* Definitions of risk factors also need to be included somewhere, e.g. Smoking yes or no—
does that mean current smoking, or any past smoking or a specific amount of past smoking,
For "Taking Chinese herbs…” does this include any amount/duration of ingestion? Etc.

* Table 1 needs to be tidied up to reflect the characteristics in the correct columns.

* Description of results needs to be more detailed. It is not clear how the risk factors interact
with the outcome of interest. The headings on Table 2 and 3 are not clear—what does "B"
"Wald" and "Exp(B)" mean for example? I cannot tell from either the table or the test
whether increasing age is associated with increased BC recurrence or is it decreasing? Is DM
without metformin use associated with increasing or decreasing risk? The tables are totally
unclear and the fact that there is no corresponding text makes it impossible to decipher which
way factors are associated and the magnitude of that association. There is some mention in
the discussion but again this is not enough to understand the interactions and is further
confusing.

* Since there were only 89 patients with recurrent BC analyzing 11 variables in the
multivariable logistical regression analysis is not statistically sound.

* First sentence of discussion is not correct. The factors listed were associated with worse
survival, not worse "pathological outcomes" of UTUC.

* The conclusions mentioned in the discussion and conclusions sections are not original in that
the recommendations for close follow-up and minimizing risk factors like smoking are not
new and are already known to most urologists. Associations of high grade/stage and
increasing age with poor outcomes, for example, are well known. The statement that
ureteroscopy should NOT be used in diagnosis of UTUC on the other hand is much too
strong and not supported by the data presented.

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