Reviewer's report

Title: Evaluation of Survival in Patients after Pancreatic Head Resection for Ductal Adenocarcinoma

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Reviewer: Mechteld de Jong

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Evaluation of Survival in Patients after Pancreatic Head Resection for Ductal Adenocarcinoma

This article concerns a retrospective review of a database containing patients who underwent surgical therapy for pancreatic head carcinoma between 1991 and 2011 at a single institution.

Major Compulsory Revisions

1. A little over two-thirds of patients underwent a PPPD, while the remaining patients were treated by a conventional Whipple. Please specify what the indications for choosing either of these approaches were. Was this decision made in the preoperative phase or during the operation? Was this associated with the era during which the patient was operated on.

2. On that same page, the length of stay is presented in mean and standard deviation. However, there seems to be a non-normal distribution, therefore this parameter should be expressed in median and range. Moreover, a longer length of stay could be a surrogate for the lack of homecare of other reasons for patients not being able to leave the hospital. Conversely to length of stay, it would be more insightful to express the time to functional recovery. This variable is more insightful as it is less influenced by non-patient related factors. Please provide some information on the time to functional recovery. Does this differ significantly from the length of stay? Was the length of stay comparable throughout the inclusion period?

3. In the discussion is it mentioned that patients with a higher CEA have an adverse outcome. At which point was this CEA measured? Moreover, which CEA is considered most specific; at time of diagnosis, at time of operation or at time of follow up? Moreover, did patients with higher CEA have certain adverse characteristics? In other words, is this simply a surrogate for tumor biology?

4. In the discussion, there is a paragraph on the role of the texture of the pancreas on survival. However, this influence is only seen on univariate analysis and not on multivariable analysis. Therefore it must be a surrogate for another variable influencing outcome. Please revise this paragraph accordingly.

5. Table 5: What are the cut off values of CEA and CA 19-9 based on? More
importantly, in addressing the influence of variables on survival, one must take
the time aspect into account. Therefore, a Cox proportional hazards model would
be more appropriate in my opinion. Please provide the hazard ratios for the
variables mentioned instead of only providing the p values.

6. Table 6: This table is inconveniently arranged. Please, instead of the OR
provides the HR, as this takes the survival time into account. Tumor grading is a
categorical variable; please provide the hazard ratio per category.

Minor Essential Revisions

7. The article contains 195 patients during a 10-year period; question rose
whether the authors consider their center specialized?

8. Patients who had portal vein involvement, venous resection was performed.
Was the number of patients who underwent this aggressive form of treatment the
same throughout the inclusion period? Was there ever reconstruction with a
patch of bypass performed?

9. On page 4 it is stated that drains were removed after exclusion of a POPF –
Please clarify this abbreviation. Also, were drains always left? Or only on
indication? If so, please specify the indications.

10. On page 5, factors that were significant a p<0.10 were included in the
multivariable model. Why was this cut off chosen, as the more broadly used cut
off is <0.20.

11. On page 6 it reads that 139 of the patients were preoperatively stented.
Please clarify the criteria which were used for stenting? Were these criteria the
same throughout the inclusion period?

12. In discussing the morbidity and mortality on page 7; please refer to the
Clavien and Dindo grades of complications. During which period did
perioperative mortality occur?

13. The sentences on resection margin are mentioned twice; please delete one
of the segments.

14. In the discussion, complications are described as severe; please correlate to
the grades according to Clavien/Dindo

15. Table 1: Please add the year or era in which patient were operated on. This
might have influenced the outcome of patients undergoing surgery for their
pancreatic head carcinoma.

16. Figure 1: For Table 4: Please mention the readmission rate as well

17. Kaplan Meier curves, when the proportion of the population alive is too small,
it is better the cut off the graph. Therefore, in this case, it might be better to stop
after 5 years (ie 60 months).
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests