Reviewer's report

Title: Predictive Value of Metabolic 18FDG-PET Response on Outcomes in Patients with Locally Advanced Pancreatic Carcinoma Treated with Definitive Concurrent Chemoradiotherapy

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Reviewer: Lena Specht

Reviewer's report:

This manuscript examines the prognostic value of PET-response to chemoradiotherapy in 32 patients with locally advanced pancreatic cancer. Patients had a FDG-PET-CT scan before therapy (which was used for planning radiotherapy) and 12 weeks after the end of treatment. They show that a good metabolic response was associated with a significantly better prognosis. This is in accordance with findings in many other tumour types, but has not been demonstrated extensively in pancreatic cancer. The authors mix local and distant recurrences, although they would seem to be qualitatively different, the local ones due to the ineffectiveness of chemoradiotherapy, the distant ones due to lack of effectiveness of the chemotherapy. However, with so few patients this is probably the best that can be done.

Major compulsory revision: The authors claim that the PET-response had independent prognostic importance when other factors were taken into account in multivariate analysis, using the Cox model. However, they do not state which other factors were taken into account (are all the really important ones included?), how these factors were scored in the analysis, how the analysis was carried out (e.g., forward or backward selection), and which factors were in the final model. This information is crucial when evaluating whether PET-response really has independent prognostic significance. When the multivariate analysis is done it must be taken into account that there are only 26 events (failures) in total, and that therefore only a limited number of different factors can be analysed in a Cox model at the same time. Also, the assumptions underlying the Cox model (proportional death intensities) must be demonstrated to hold. Statistical assistance is advised.

Minor essential revision: The numbers in Table 2 do not add up. With a total number of patients of 32, 16 males and 8 females is too little.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests