Reviewer’s report

Title: Preoperative chemotherapy and carbon ions therapy for treatment of resectable and borderline resectable pancreatic adenocarcinoma: a prospective, phase II, multicentre, single-arm study

Version: 0 Date: 07 Jun 2019

Reviewer: Shohei Kawashiro

Reviewer’s report:

The authors introduce a prospective phase II trial to investigate the efficacy of preoperative chemotherapy and carbon ion radiotherapy for resectable and borderline resectable pancreatic cancer. I am very interested to know the results of this trial. I would like to clarify these things below.

1. Authors use FOLFIRINOX as preoperative chemotherapy, whereas they use gemcitabine for adjuvant chemotherapy. I think that capecitabine, which is also fluorinated pyrimidine and the same as 5-FU used in FOLFIRINOX can also be a candidate for adjuvant chemotherapy. I would like to ask the authors to comment the reason for selecting the chemotherapy drugs.

2. Regarding carbon ion radiotherapy, authors acquire 4D CT images and use around the maximum expiration phase to make a treatment plan and irradiate. I would like to know this respiratory gating more in detail. How many phases of 4D CT images do you take and how many phases out of all the phases do you use to irradiate a target. Please add them to the text.

3. I would also like to ask authors to explain how to arrange the carbon ion beams. If you have the standard numbers of ports and directions of beams, please explain. Do you irradiate all ports at one fraction or one port per fraction?

Please check and correct below;

Background

Lines 6 and 15: "5-years" should be "5-year" in these sentences.

Line 27: What does "fare better than" mean?

Methods

Line 38: "respiratory gating end rescanning 4 times..." should be "respiratory gating and rescanning 4 times..."
Eligibility criteria

Line 59: "citologically" should be "cytologically".

Line 15: Please check "platelets, ≥10x104/mm3".

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.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Unable to assess

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.

Not relevant to this manuscript

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

Needs some language corrections before being published

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