

Peer Review File

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Reviewer A

1. In your discussion of the AT-4 trial in Line 107-113, please mention that the time to improvement and the time to deterioration of QOL improved with the combination of nivolumab.

RESPONSE: This has been added in a posted note: The time to improvement and the time to deterioration of quality of life were superior with the combination of nivolumab

2. Check out the NO LIMIT trial announced at ESMO 2023 in the MSI-High section. (<https://doi.org/10.3390/cancers13040805>)

RESPONSE: Thanks for the citation.

3. Please create a table including other drugs in the Future direction section.

RESPONSE: I would defer this, it is outside the scope of this review which reports current practice and use of agents in the U.S.

Reviewer B

This is an informative review for the readers in high prevalence countries such as Japan, Korea and China. where early detection procedures have more important implication to control of gastric cancer death.

1. Line 28: I understand "metastatic gastric cancer" here means gastric cancer with metastasis to other organs (lymph nodes, liver, peritoneum, lung and others), but traditionally "metastatic liver cancer" means cancer in the liver metastatic from the other organ such as colon. I have spent 30 years for education for medical students in Pathology, and nomenclature is a topic in the introduction. I have noticed many publications recently use the term like in this paper, in most cases the readers would understand from the context. Just consult to whether any terminology committee there.

RESPONSE: Nowhere in the paper to I refer to metastatic liver cancer. No changes needed.

2. Line 381: I completely agree that a research priority remains to explore more predictive biomarkers. As a pathologist, CPS and TPS are always frustrating in determination in terms of selection bias and less robustness. The authors may mention on the issues on the practical pseudoscientific problem to how many pieces or blocks should be used for this counting and others.

RESPONSE: I see this point but I would defer making a comment about this.

Reviewer C

This is a well written review article that does an excellent job of summarizing the critical data for anti PD1 therapy in gastroesophageal cancer in the U.S. The article is very evidence based and generally balanced.

I have some comments:

1. Lines 283-292: The characterization of keynote 181 could be a little more balanced. The trial results are mostly depicted as a failure, aside from one clause (“... any benefit for pembrolizumab was limited to squamous esophageal cancers”). It would add balance to clarify that the trial did in fact meet one of its 3 primary endpoints: ie, overall survival in patients with PDL1 CPS 10 or higher (hazard ratio 0.69; 95% CI 0.52 - 0.93; P =.0074). What is also not mentioned – but should be -- is that these trial results led to pembrolizumab approval by both FDA and NCCN category 1 for second-line treatment of squamous cancers with CPS 10 or higher.

RESPONSE: See PDF edits. Text added: KEYNOTE-181 did lead to approval in the U.S. for pembrolizumab in the second line treatment of esophageal squamous cell cancers testing positive for PDL-1.

2. Lines 312 – 317: The text on ATTRACTION 02 indicates that “survival benefits were seen irrespective of PD-L1 status [TPS]...”. To provide context, it should be mentioned that PDL1 data were available in only 39% (192/493) of randomized subjects.

RESPONSE: However, PDL-1 status was only available in 39% (192/493) of randomized patients.

3. Lines 68 - 75, and 157 - 160: A few times, the author conflates deciding upon immunotherapy on a “case by case” basis, as recommended by ASCO, with the NCCN Cat 2B recommendations. It is true that the ASCO guidelines recommend “case-by-case” decision-making for the patients with intermediate PDL1 results. But the NCCN 2B designation is based on “lower level evidence” and “consensus” (see below). To this point, depending on the practitioner, a practitioner may decide to give IO to all pts (not case by case) with intermediate PDL1, based on NCCN 2B. It would improve the manuscript to be a bit more precise here in distinguishing ASCO vs NCCN.
Category 2B: Based upon lower-level evidence, there is NCCN consensus that the intervention is appropriate...

RESPONSE; Language added spelling out NCCN listing as 2B, see PDF edits.

NCCN guidelines list nivolumab usage in patients with CPS scores $< 5\%$ and $\geq 1\%$ as supported by level 2b evidence, indicating that a lower level of evidence supports usage in these patients, as appropriate, but at the discretion of the treating physician.

NCCN guidelines list usage of pembrolizumab in these patients as level 2b evidence, with a lower level of evidence but clinically appropriate as determined by the treating physician.

4. Lines 346 - 356: Survival results have now been reported for KN585. One could consider updating the manuscript, but this isn't necessary.

RESPONSE: I prefer to defer this.

5. Lines 198-200: Survival results are now reported for KN811. One could consider updating the manuscript, but this isn't necessary.

RESPONSE: I prefer to defer this.

6. It may be nice to comment on the role (or lack thereof) of total mutation burden as a predictive marker in this disease. Again not necessary.

RESPONSE: I prefer to defer this.

7. There may be a typo on line 117. The author may have been referring to keynote 589, not 585.

RESPONSE: Corrected, see edited PDF.

Reviewer D

This review describes the use of anti-PD-1 therapy in gastric cancer in the USA.

It may be interesting to discuss and add a section on the resistance mechanisms that limit current immunotherapies in gastric cancer, including PD-1 blockade and combination with anti-CTLA4.

RESPONSE: This is beyond the scope of this review.

It may also be interesting to add a figure that show the mechanisms of PD1 blockade on gastric cancer, especially the immune mechanisms leading to response or resistance.

RESPONSE: I would choose to defer this.