Peer Review File

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Reviewer A

This is a good study that was conducted to answer a clinical question. However, since this was a study with a large number of registered cases using a database, it should be possible to include treatment effects. I think the study will be more impactful if the evaluation of treatment effects is also included.
I would like to add a few more major comments.

Comment 1
The study enrolled 1148 patients, but how many stage III-IV patients were not enrolled? If many patients were excluded due to missing PD-L1 or comedication data, it could be determined that this may be a more biased population. We believe that this information should be mentioned.

Reply1: We added data about excluded patients as advised.
Changes in the text: Page 6, line 103-104

Comment 2
It seems strange to treat PD-L1 expression as a continuous parameter. There is no description of the evaluation of immunostaining, and this should be described in the methods section. It is expected that pathologists evaluate the percentage of staining range, but it is a subjective indicator and there is likely to be a large bias among the evaluators. It would be sufficient to evaluate it as a categorical parameter (in clinical practice, only this evaluation is used to decide on the therapeutic approach).

Reply2: Firstly, the PD-L1 evaluation method was evaluated. Secondly, we agree that there could be bias among the concrete evaluators. Therefore we let results with PD-L1 as only categorical parameter.
Changes in the text: Page 5, line 91-92; Page 5, line 95-98; Page 6, line 117- 119 + Table 4 excluded and table 5 therefore rename on Table 4

Reviewer B

Although this study assessed the relationship of PD-L1 expression and the use of corticosteroids or NSAIDs in a large number of 1148 NSCLC patients, there was still a lack of explanations for the possible mechanism in the Discussion of this article.
There are some major suggestions:

1. In the Introduction “line 55”, and the footnote of Table2, Table 4 and Table 5, the abbreviation of NSAID could be concordance with the NSAID denotes the “non-steroidal anti-inflammatory drugs” (NSAID) in the abstract (line 33).

Reply1: We have modified our text as advised.
Changes in the text: Page 4, line 55; Footnote of table 2 and 4 (table 5 was excluded – see upper comment)

2. The flowchart of the study design for demonstrating the grouping for statistical analyses is recommended.

Reply2: We added flowchart ad advised.
Changes in the text: Page 6, line102 + Figure 1 on Page 17

3. In the Discussion (line 134-145), the authors reviewed some factors including the effects of different cell types and doses of corticosteroids. Some previous studies addressed the relationship between the “baseline” corticosteroids and the ”response or outcomes” after using PD-L1 inhibitors for months.
However, the duration of the use of corticosteroids before the biopsy in this study might be too short to detect the effects of corticosteroids on PD-L1 expression. The duration of the use of corticosteroids should be taken into account in the present study.

Reply3: We agree that the duration of corticoid administration may theoretically have played a role. Unfortunately, the exact timing of corticosteroids is unknown. We have therefore included this information in the limitations of our study.
Changes in the text: Page 8, line 168-169.

4.The authors of this study may further state the hypothesis or explain the role of corticosteroids or NSAID “before the treatment” in NSCLC patients.

Reply4: We have modified our text as advised.
Changes in the text: Page 4, line 67 + page6, line 125+126.

5. Furthermore, the possible clinical application of the results in this study could be further demonstrated for the readers in the Discussion section.

Reply5: We have modified our text as advised.
Changes in the text: Page 6-7, line 123-126.