Tislelizumab (TIS) plus chemotherapy (chemo) for EGFR-mutated non-squamous non-small cell lung cancer (nsq-NSCLC) failed to EFGR tyrosine kinase inhibitors (TKIs) therapies: the primary analysis

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BACKGROUND

- Treatment option is limited for EGFR-mutated NSCLC after failure to EGFR TKIs. Platinum-containing double chemotherapy with or without bevacizumab is often recommended as the initial treatment. 10-15% of patients with NSCLC have a history of surgery and their survivals benefit with median progression-free survival (PFS) of 5-6 months.
- Median objective response rate (ORR) of 24% is reported in gefitinib trials.
- Despite disappointing results with immune checkpoint inhibitor monotherapy, double blind shows that combining PD-1 or PD-L1 inhibition with chemotherapy or targeted therapy may improve outcomes for patients who are resistant to EGFR TKIs.
- Tislelizumab, a humanized anti-PD1 antibody, is effective and safe for the treatment of advanced or metastatic tumor (1). It was approved in China for the treatment of advanced squamous cell carcinoma of the lung with EGFR tyrosine kinase inhibitors (TKIs) resistance or intolerance.
- The effects of Tislelizumab in combination with chemotherapy treatments were not well documented. It is of great significance to understand its role in treatment strategy.

METHODS

- The study design is summarized in Figure 1.
- The 1-year PFS rate was estimated using the Kaplan-Meier method and the corresponding 95% and 96% confidence intervals were calculated using the Greenwood formula.
- Safety was evaluated in the efficacy analysis set which included patients receiving at least one dose of tislelizumab or chemotherapy in the study and patients who discontinued treatment due to disease progression or adverse events.
- The safety analysis set included all patients who received at least one dose of tislelizumab or chemotherapy in the study.
- NSCLC was performed using a post-carier 430 gene panel (Geneseeq, Peking University, Beijing, China) on tissue samples from patients with available information.
- Cohort A is currently under recruitment and will be reported separately.

RESULTS

- Patients: From July 20-20 Dec 2020, 76 patients were enrolled (Table 1).
- The safety set included all patients treated ≤85% of the study drugs (76 patients).
- The primary endpoint (PFS) is detailed in Table 1. (Figure 2)
- The primary endpoint was 56% (95% CI, 43-69.8) in patients treated with chemotherapy alone and 77.8% (95% CI, 61.1-89.0) in patients treated with tislelizumab + chemotherapy.

CONCLUSION

The clinical results of tislelizumab plus chemotherapy are significant, effective, and well tolerated for EGFR-mutated non-squamous non-small NSCLC (nsq-NSCLC). However, the efficacy of tislelizumab plus chemotherapy in clinical trials needs to be verified in future studies.

Safety and tolerability

- Grade 3/4 treatment-related adverse events (TRAEs) occurred in 38.1% of patients (n=29) in treatment arm A (Tislelizumab+chemotherapy) and 47.5% of patients (n=36) in treatment arm B (chemotherapy alone).
- Tislelizumab-related adverse events in ≥15% of patients are summarized in Table 5. The two most common tislelizumab-related adverse events were decreased free thyroxine (0.79-9.72) and decreased platelet count (9.27-9.95).
- Common grade 1/2 treatment-related adverse events are summarized in Table 4. The two most common treatment-related adverse events were decreased free thyroxine (0.79-9.72) and decreased platelet count (9.27-9.95).
- The results of tislelizumab (chemo)-based chemotherapy will be reported subsequently after fully analyzed.

References

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