Preliminary Results With Tislelizumab in Chinese Patients With Non-Small Cell Lung Cancer (NSCLC)

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Background

NSCLC accounts for 80–85% of all lung cancers and has a poor prognosis at later stages. Immune checkpoint inhibitors have shown efficacy in patients (pts) with advanced NSCLC. Tislelizumab is a humanized IgG4 monoclonal antibody with high affinity/specificity for PD-1. Tislelizumab was specifically engineered to minimize F_cYR binding on macrophages that, based on preclinical evidence, is believed to minimize potentially negative interactions with other immune cells. In a phase 1 study, tislelizumab was generally well tolerated and showed antitumor activity in NSCLC pts; 200 mg IV Q3W was established as the recommended tislelizumab dose.

Method

In the ongoing indication-expansion phase of this study, Chinese pts with histologically confirmed NSCLC were enrolled into PD-L1-high (PD-L1$^+$; ≥10% tumor cells expressing PD-L1) and PD-L1-low (PD-L1$^-$) cohorts. Antitumor activity (RECIST v1.1) and safety/tolerability (NCI-CTCAE v4.03) were assessed.

Result

As of 8 Dec 2017, 42 NSCLC pts (median age 54 yr [range 37–72]) were enrolled; 17 were PD-L1$^+$ and 25 were PD-L1$^-$. Most pts were male (69%), former/current smokers (57%), and had received prior therapy (95%). Adenocarcinoma was the most prevalent histology (57%). Median follow-up was 4.5 mo and 23 pts remain on treatment. Of the 39 response-evaluable pts, 4 (n=2/14, PD-L1$^+$; n=2/25, PD-L1$^-$) achieved confirmed PR and 20 (n=6/14, PD-L1$^+$; n=14/25, PD-L1$^-$) achieved SD, including 4 (n=2, PD-L1$^+$; n=2, PD-L1$^-$) with unconfirmed PR. Across the study population, ORR was 10% and DCR was 61.5%. ORRs by cohort were 14% (PD-L1$^+$) and 8% (PD-L1$^-$), respectively. Common treatment-related AEs were increased AST (24%), increased ALT (19%), hypothyroidism (12%), and rash (12%). Five grade ≥3 treatment-related AEs occurred in 4 pts (increased AST [n=2], hyperglycemia, increased ALT, and increased GGT [n=1 each]). No treatment-related grade 5 events were reported.

Conclusion

Tislelizumab was generally well tolerated and demonstrated antitumor activity in previously treated pts with advanced NSCLC. A global phase 3 study (NCT03358875) of tislelizumab vs docetaxel as

potential second/third-line therapy in NSCLC pts who progressed after a platinum-based regimen is ongoing.