Antitumor Activity and Safety Profile of Trilaciclib in Chinese Patients with Extensive-Stage Small Cell Lung Cancer (ES-SCLC) receiving Chemotherapy (TRACES): Updated results from TRACES

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BACKGROUND

- Trilaciclib, a potent and reversible intravenous CDK4/6 inhibitor, has been approved by US FDA and China NMPA to prevent multilineage chemotherapy-induced myelosuppression in ES-SCLC patients.
- The TRACES study is a phase III trial assessing the efficacy and safety of trilaciclib in Chinese ES-SCLC patients.
- The bone marrow protection effect was significant which was reported in WCLC 2022.1

METHODS

- This study included an open-label safety run-in part (Part 1) and a randomized, double-blinded, placebo-controlled part (Part 2).
- Treatment-naive or previously treated ES-SCLC patients received trilaciclib (240 mg/m²) or placebo before etoposide/cisplatin (E/P) or topotecan (TPT) respectively.
- The primary endpoint was the duration of severe neutropenia in Cycle 1.
- The exploratory endpoints for anti-tumor effect were OS and ORR, PFS and DOR assessed by RECIST v1.1. The anti-tumor results are presented here.

RESULTS

Patient disposition and PK analysis

- As of 30 December 2022, a total of 83 patients were enrolled in Part 2, with 41 receiving trilaciclib (E/P: 23; TPT:18) and 42 receiving placebo (E/P: 23; TPT:19).
- Among all the patients receiving trilaciclib in Part 1 and Part 2, the infusion time was between 30-35 minutes for most (94.5%). In addition, the shortest and longest infusion duration were 20 and 76 minutes respectively.
- Simulation using a PopPK model indicated that infusion time had a minor effect on AUC but significant effect on Cmax.
- Results from exposure-response analyses showed that efficacy is more correlated with AUC and therefore the fluctuations of Cmax do not affect myeloprotective and anti-tumour efficacy.
- Although shortened infusion time will increase Cmax, which may lead to an increased incidence of AE, the incidence of AE was manageable within the actual infusion time range of 20-76mins.

Table 1: Infusion time of trilaciclib in Part 1 and Part 2

<table>
<thead>
<tr>
<th>Infusion time (M)</th>
<th>Part 1</th>
<th>Part 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>INF#</td>
<td>Pct (%)</td>
<td>INF#</td>
</tr>
<tr>
<td>20-29</td>
<td>5</td>
<td>2.7</td>
<td>16</td>
</tr>
<tr>
<td>30-35</td>
<td>175</td>
<td>94.6</td>
<td>772</td>
</tr>
<tr>
<td>36-59</td>
<td>3</td>
<td>1.6</td>
<td>22</td>
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<tr>
<td>60-80</td>
<td>2</td>
<td>1.1</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>185</td>
<td>100</td>
<td>818</td>
</tr>
</tbody>
</table>

CONCLUSIONS

- Trilaciclib was well tolerated in Chinese patients. Administering trilaciclib prior to chemotherapy in ES-SCLC patients was well tolerated, with lower incidence of ≥Grade 4 TEAEs, SAEs, TEAEs leading to treatment discontinuation.
- No TEAEs leading to death were reported related to trilaciclib.

REFERENCE: 1. Myeloprotection with Trilaciclib in Chinese Patients improved patients’ tolerability to chemotherapy, and suggested potential survival benefit.