A phase I, dose-escalation and dose-expansion study of SY-3505, a third-generation ALK TKI, in Chinese ALK positive advanced non-small cell lung cancer

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Background

• Anaplastic lymphoma kinase (ALK) fusions account for 3–7% genetic alterations in non-small cell lung cancer (NSCLC)1.
• SY-3505 is a 3rd-generation ALK tyrosine kinase inhibitor (TKI) against both wild-type ALK and a broad range of mutations (Figure 1) occurring in 1st and 2nd-generation ALK TKI-resistant patients2.

Methods

• This is a multi-center, open-label, non-randomized, single-arm and first-in-human phase 1 study.

Figure 1. In Vitro Potency of SY-3505

Table 1. Patient Baseline Characteristics

Table 2. Most Common TRAEs in Patients (n=32)

Conclusions

• SY-3505 was well tolerated in patients including those previously treated with two or more ALK TKIs.
• Most of the TRAEs were minor and reversible.
• Preliminary anti-tumor activity was observed in patients who had received more than one 1st- or 2nd-generation ALK TKI.

References


Figure 3. Concentration-Time Profile of SY-3505 in Patient Plasma

Figure 4. Anti-Tumor Activities of SY-3505 in ALK+ Advanced NSCLC

Disclosures

• This study is sponsored by Shouyao Holdings (Beijing) Co., Ltd.
• All authors have declared no conflicts of interest.

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Results

Population

• Between Apr 28, 2020 and Dec 31, 2021, totally 32 patients were enrolled into 9 dose-escalation cohorts (n=24) and 2 dose-expansion cohorts (n=8) (Figure 2, Table 1).

Pharmacokinetics

• PK analyses indicated the accumulation of SY-3505 in the patients with an approximate t1/2 of 26-56 hr (Figure 3).